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December 11, 2009

Ms. Erin Brittain
Project Manager
Voluntary Remediation Program
Office of Land Quality
100 North Senate Avenue
Indianapolis, Indiana 46204

Re: **Quarterly Monitoring Progress Report – 2nd Quarter 2009**
Michigan Plaza
3801-3823 West Michigan Street
Indianapolis, Indiana 46222
IDEM Incident # 0000198
IDEM VRP # 6061202
MUNDELL Project No. M01046

Dear Ms. Brittain:

This *Quarterly Monitoring Progress Report* is being submitted to the Indiana Department of Environmental Management (IDEM) by MUNDELL & ASSOCIATES, INC. (MUNDELL), on behalf of AIMCO, to summarize further site characterization, remediation activities and quarterly monitoring performed from April 1 through July 31, 2009. The following sections provide detailed discussions of the results of this work. All activities were completed on schedule.

GROUNDWATER MONITORING NETWORK SAMPLING

On June 15th-18th, 2009, quarterly and annual groundwater sampling of the existing thirty-eight (38) monitoring wells established with IDEM on May 25, 2007, and the two (2) additional monitoring wells on the Floral Park Cemetery property were performed. The following constitute this quarterly groundwater monitoring network:

- 1) *Thirty (30) MUNDELL monitoring wells:* MMW-1S, MMW-2S, MMW-3S, MMW-4D, MMW-5D, MMW-6D, MMW-7S, MMW-8S, MMW-9S, MMW-10S, MMW-11S, MMW-11D, MMW-12S, MMW-13D, MMW-14D, MMW-P-01, MMW-P-02, MMW-P-03S, MMW-P-03D, MMW-P-04, MMW-P-05, MMW-P-06, MMW-P-07,

MMW-P-08, MMW-P-09S, MMW-P-09D, MMW-P-10S, MMW-P-10D, and MMW-C-01 and MMW-C-02 (MUNDELL wells on Floral Park Property)

- 2) *Seven (7) Keramida monitoring wells:* MW-167S, MW-167D, MW-168S, MW-168D, MW-170S, MW-170D, and MW-171D.

In addition to collection of groundwater levels from each of the above mentioned monitoring wells, MUNDELL measured static groundwater elevations via an electric oil/water interface probe from four nests of Keramida monitoring wells surrounding the Plaza Property for the purpose of more accurately determining the groundwater flow direction and gradient over this wider area. The following additional wells had their groundwater levels measured this quarter quarter:

- 1) *Eight (8) Keramida monitoring wells:* MW-167S, MW-167D, MW-169S, MW-169D, MW-170S, MW-170D, MW-171S and MW-171D.

During this investigation, monitoring well MMW-P-04 was found to contain a layer of injection oil (CAP-18TM) at the top of the water table. All monitoring well sampling, survey and construction data are provided in **Tables 1, 2 and 2a**, respectively, and the potentiometric map is illustrated in **Figure 1**.

The wells were sampled utilizing a ‘Sample Pro Portable MicroPurge Pump’ for uniform low-flow purging and sample collection. This microPurge pump uses a quick-change, one-piece bladder design, and can be connected to a Troll 9500 multi-parameter meter with an inline flow cell. This flow cell logs geochemical parameters (temperature, pH, dissolved oxygen, conductivity, and oxidation reduction potential), which help remove a minimal but sufficient amount of water (indicated by stabilization of geochemical parameters) to sample the well. The troll helps assess the geochemical parameters as evidence of conditions naturally conducive to natural attenuation existing in the aquifer. The pump is decontaminated between wells and the bladders are disposed of after sampling each well.

All excess purge water was transported to 55-gallon drums located at the Site for proper disposal.

As agreed in the October 29th, 2008 meeting with IDEM, and detailed in the *RWP Addendum November 2008*, groundwater samples were submitted to Pace Analytical Laboratories (Pace) in Indianapolis, Indiana for the shorter list of VOC analysis via U.S. EPA SW-846 Method 8260, along with appropriate duplicate (DUP), matrix spike (MS) and matrix spike duplicate (MSD). Groundwater samples were transferred into three 40-milliliter glass sample vials containing the preservative hydrochloric acid (HCl). Groundwater sample vials were sealed in plastic bags and placed in a cooler containing ice and delivered to Pace using appropriate chain-of-custody protocol for laboratory tests. Pace laboratory certificates of analysis for the groundwater samples analyzed are presented in **Appendix A**.

Baseline groundwater geochemical parameters (pH, dissolved oxygen, oxidation-reduction potential, conductivity, and temperature) were measured with a low-flow cell and multi-parameter water quality probe in the post-injection period to evaluate whether aquifer conditions continue to be favorable for natural attenuation of the indicator compounds at the Site.

Additional aquifer chemical parameter testing has been performed in the past and will be scheduled based on observed subsurface response in each plume area going forward. Additional aquifer parameters including methane, ethene, and ethane are periodically analyzed to evaluate indicator compound breakdown and redox-sensitivity. In addition, volatile fatty acids (VFA) will also be tested periodically to evaluate substrate distribution and lifetime duration of the product. These samples will be collected in select monitoring wells representative of each plume to monitor the presence of residual CAP 18TM in the aquifer and to provide additional monitoring of aquifer conditions. Future monitoring of these constituents will be performed as needed to evaluate the natural attenuation process.

It should be noted that the complete monitoring well network (a total of 40 monitoring wells including other wells on the Michigan Meadows Apartments property and other selected Keramida wells) were sampled this quarter, as discussed with IDEM.

All excess purge water was transported to 55-gallon drums located at the Site for proper disposal.

The groundwater pumped out of the wells during well development were placed in 55-gallon drums located at the Site for later disposal. In accordance with IDEM guidelines, the contents in each drum were then identified with a label describing them as non-hazardous materials.

INDOOR AIR MONITORING

On June 17th and 18th, 2009, follow up indoor air samples (via summa canisters) were collected at two tenant units at Michigan Plaza (Alcoholics Anonymous (3817), and the vacant library space (3805)). The 3817 space is now periodically occupied and the 3805 space is potentially going to be leased out in the near future. A follow up soil gas sample was also collected at soil gas monitoring well MGW-5 on June 17th, 2009.

Tables 5a, 5b and 5c present the air sampling results for Michigan Plaza, soil gas monitoring wells and the health based limits in air respectively. **Figure 3** demonstrates the recent and historical air analytical results.

GROUNDWATER ANALYTICAL RESULTS

Groundwater analytical testing results for this quarter are summarized in **Table 3** and presented on **Figure 2**. One (1) out of the thirty-nine (39) monitoring wells sampled this quarter (MMW-1S) showed PCE concentrations exceeding the IDEM RISC Industrial Default Closure Level (IDEM RISC IDCL). Five (5) monitoring wells (MMW-9S, MMW-10S, MMW-P-02, MMW-P-04, and MMW-C-01) demonstrated PCE concentrations exceeding the IDEM RISC

Residential Default Closure Level (IDEM RISC RDCL) but below the IDCL. The historical indicator compounds trends in groundwater are presented in **Figure 4**.

None of the monitoring wells showed TCE concentration exceeding the IDEM RISC IDCL, and five (5) monitoring wells (MMW-1S, MMW-3S, MMW-9S, MMW-10S, and MMW-P-04) exceeded the RDCL, but were below the IDCL.

Four (4) monitoring wells (MMW-5D, MMW-9S, MMW-P-01, and MMW-P-10D) showed cis-1,2-DCE concentrations exceeding the IDEM RISC IDCL. Thirteen (13) monitoring wells (MMW-4D, MMW-8S, MMW-10S, MMW-11S, MMW-13D, MMW-14D, MMW-P-03S, MMW-P-04, MMW-P-06, MMW-P-07, MMW-P-08, MMW-P-10S, and MW 167D) exhibited cis-1,2-DCE concentrations exceeding the RDCL, but below the IDCL.

Twenty-two (22) monitoring wells (MMW-4D, MMW-5D, MMW-6D, MMW-8S, MMW-9S, MMW-10S, MMW-12S, MMW-13D, MMW14D, MMW-P-01, MMW-P-02, MMW-P-03S, MMW-P-03D, MMW-P-06, MMW-P-07, MMW-P-08, MMW-P-09D, MMW-P-10S, MMW-P-10D, MW-167D, MW-168D, and MW-170D) showed vinyl chloride concentrations exceeding the IDEM RISC IDCL. Four (4) monitoring wells (MMW-3S, MMW-P-04, MMW-11S, and MMW-171D) exhibited vinyl chloride concentrations at or exceeding the RDCL, but below the IDCL.

The recently installed deep monitoring wells (MMW-13D and MMW-14D) exhibited significant cis-1,2-DCE and vinyl exceedances above the IDCLs during this quarter (**Figures 4 and 5**). Since these wells have been purposefully located upgradient of *Source Areas B* and *C*, the impacts observed in these areas demonstrate groundwater impacts that are attributable to other upgradient, off-site sources and not to Michigan Plaza. As seen on **Figures 4 and 5**, the indicator compound concentrations at these deep, upgradient wells can be considered as “background levels” defined as the concentration of contaminants from the Genuine source coming into the deeper aquifer in this area. These indicator compound levels aid in discerning between the Michigan Plaza source impacts and the Genuine Site impacts, and will ultimately be used to evaluate the target cleanup levels for the deeper aquifer at the Site.

Also, three different samples were collected at varied intervals within the aquifer at MMW-13D. The shallow depth sample (MMW-13D High) was collected at 17 feet bgs, the medium interval sample (MMW-13D Medium) was collected at 29 feet bgs and the deepest sample (MMW-13D Low) was collected at 44 to 47 feet bgs. The MMW-13D Low sample which was collected at the deepest possible interval in the aquifer demonstrated the highest concentration (613 ug/L) of cis-1,2-DCE. MMW-13D High sample demonstrated the highest concentration of vinyl chloride (21.1 ug/L) within monitoring well MMW-13D.

IN-SITU BIOREMEDIATION CAP 18TM INJECTIONS

Based upon the 1) the extent and severity of the indicator compound concentrations and trends, 2) site-specific operational constraints and uses, 3) geochemical and physical characteristics of

the aquifer, and 4) economic factors, in-situ bioremediation with CAP18TM (an enhanced, food-grade vegetable oil product), followed by Monitored Natural Attenuation (MNA) is the selected remediation technology for the Site for treating groundwater, as detailed in the RWP. The initial CAP18TM injection was performed in all the three source areas in August 2007 using a direct push Geoprobe system. Locations and spacing of the injection points were designed to address the sewer line related *Chemical Source Areas* and provide injection locations in each *Chemical Source Area* that upon migration downgradient in the direction of groundwater flow, are expected to remediate the most significant groundwater impacts. A booster CAP-18ME injection was performed in February 2009 to aggressively treat some areas where the chemical concentrations have begun to stabilize or are decreasing at a slow rate. During this quarter, no additional active CAP-18ME injections were completed.

Indicator Chemical Trends

A group of monitoring wells from the sampling network is utilized to monitor dissolved indicator compound concentration trends over time at various locations within the heart of the three chemical source areas. Graphs of historical PCE, TCE, cis-1,2-DCE and vinyl chloride concentrations are developed for the following monitoring wells:

Source Area A: MMW-P-03D

Source Area B: MMW-P-01, MMW-P-07, MMW-P-08, and MMW-8S

Source Area C: MMW-1S, MMW-9S, and MMW-10S

Figures 3 and 4 illustrate the changes in the chlorinated solvents concentrations demonstrating reductive dechlorination as a result of the CAP-18 remediation implementation. To illustrate the effect of the CAP-18 injection on hydrocarbon concentrations, injection dates are included on the graphs.

PCE and cis-1,2-DCE impacts in **Source Area A** (MMW-P-03D) appear to have a decreasing trend, and vinyl chloride demonstrated an increasing trend after the second round of CAP-18 injection in February 2009. This is indicative of reductive dechlorination (further breakdown of parent compounds) in **Source Area A**. This is indicative of continued reductive dechlorination in this area (indicating further breakdown of parent compounds) in **Source Area A**.

PCE impacts in the **Source Area B** (MMW-P-01, MMW-8S, and MMW-P-07) have significantly decreased, with corresponding decreases in the cis-1,2-DCE and vinyl chloride concentrations (with the exception of MMW-P-08 where the VC concentrations demonstrated an increasing trend) after the second round of CAP-18 injection. This is indicative of reductive dechlorination in **Source Area B**. There was a slight increase in the PCE concentration in monitoring well MMW-8S immediately after injection during the fourth quarter of 2007, followed by a decreasing trend in the first quarter of 2008, accompanied by a spike in cis-1,2-DCE and vinyl chloride concentrations. The PCE concentration has significantly decreased in monitoring well MW-8S since then, although it was slightly higher immediately after injection. A spike in

cis-1,2-DCE and vinyl chloride concentrations occurred after the first injection, following by decreasing cis-1,2-DCE trends and stable vinyl chloride trends up to the 2nd injection event. The analytical results are attached in **Appendix A**.

PCE impacts in the *Source Area C* (MMW-1S, MMW-10S, and MMW-9S) appear to have a decreasing trend with a slight increase for this quarter, and vinyl chloride demonstrated a decreasing trend in all three wells for this quarter. Cis-1,2-DCE concentrations were lower this quarter in both MMW-1S and MMW-9S. MMW-10S demonstrated an increase in cis-1,2-DCE for this quarter. This is indicative of continued reductive dechlorination in *Source Area C*.

Thus, an overall decreasing trend in PCE and TCE concentrations (in some areas achieving nondetectable concentrations), and an increase in the daughter product concentrations (indicating breakdown of parent compounds via reductive dechlorination) has occurred significantly since the CAP-18 injections in the *Source Areas A, B and C* in August 2007.

The second round of CAP-18^{ME} injection (completed in February 2009) was completed to allow for PCE concentrations to be reduced more effectively in areas that continued to contain higher levels of chlorinated hydrocarbons. This booster injection was conducted in *Source Area C* (west - southwest of Apartment Building No. 1, *Source Area B* (plaza parking lot), and *Source Area A* (beneath the plaza building during soil sampling activities) to further remediate the plumes. Changes in concentrations resulting from this next round of injections will be able to be better evaluated over the next several quarters as additional groundwater monitoring is completed.

INDOOR AIR SAMPLING RESULTS – JUNE 2009

Indoor air concentrations have dramatically decreased in the 3817 Michigan Street location (currently Alcoholics Anonymous) and the 3805 Michigan Street space (Old Library space, unoccupied). It should be noted that these spaces do not have vapor mitigation systems in place. This is a very positive development demonstrating that site remedial activities have been successful in significantly reducing the indoor air impacts (see attached **Figure 2**). The PCE concentrations in both these spaces are below both the U.S. EPA action levels and the IDEM occupational vapor intrusion action level (6.8 ug/m³). The old library space is currently unoccupied, and the AA space is used only occasionally for meetings.

The soil gas monitoring well (MGW-5) in the middle of the plaza parking lot still showed a spike in the contaminant concentrations. The soil gas well MGW-5, in the middle of the plaza parking lot, shows impacts exceeding some of the IDEM soil gas screening levels (worst case conditions with exposure duration of 25 years). This duration of exposure is a very conservative comparison, as this location has only been a parking lot since the development of the land. Furthermore, the nearest inhabited indoor spaces are all currently being addressed with air mitigation systems; therefore, exposure pathways are significantly being reduced. MUNDELL will sample this gas well (MGW-5) again in 2010 to monitor soil gas trends in this area, particularly since it is located in the heart of *Source Area B*. MUNDELL anticipates these levels

have been affected by the groundwater plume in *Source Area B* which is currently undergoing dechlorination via the CAP-18 remediation.

INDOOR AIR MITIGATION SYSTEMS PERFORMANCE

Four sub-floor slab depressurization units were installed by *Air Quality Control (AQC)* under the oversight of MUNDELL in September 2006. Three additional sub-floor slab depressurization units were installed by AQC under the oversight of MUNDELL on March 19 and 26, 2008. Unit/blowers were installed in the following spaces at Michigan Plaza: 1) the Village Pantry (B1), 2) the former Handicap Space (B2), 3) the Mexican Store (B3), and 4) the Laundromat (B4). The systems installed at the Michigan Apartments are in: Building No. 1, Basement Apartment 101 (B5), Building No. 6, Basement Apartment 602 (B6), and Building No. 10, Basement Apartment 1001 (B7). The system locations are illustrated in **Figure 6**.

Since the time of installation, system stack air samples were collected weekly for a few weeks followed by bi-weekly sampling for a month, monthly for a quarter and then on a quarterly basis thereafter. PID readings have also been concurrently measured in each of the stacks. The historical PCE concentration trends and cumulative pounds of PCE and total contaminants removed by each of the systems (B1 through B7) are summarized in **Figures 7 through 15**. The associated calculations are provided in **Appendix D**.

DEDICATED BLADDER PUMPS INSTALLATION

Dedicated bladder pumps were researched and purchased in June 2009. They were installed in each of the MUNDELL monitoring wells from July 8th through July 10th for future ease and efficiency in quarterly monitoring. Final intake depth for each of these pumps was at about the screen mid-points. Photographic documentation of the installation process is captured in **Appendix B** and the specifications of the installed pumps, tubing and other associated parts are attached in **Appendix C**.

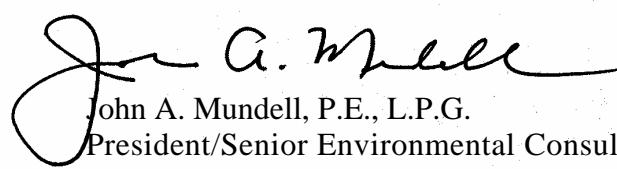
We appreciate the opportunity to update IDEM on the progress of remedial activities and monitoring at the Site. If you have any questions, please don't hesitate to contact us at (317) 630-9060 or via email (jmundell@MundellAssociates.com; llothe@MundellAssociates.com).

Sincerely,

MUNDELL & ASSOCIATES, INC.



Leena A. Lothe
Project Environmental Engineer


John A. Mundell, P.E., L.P.G.
President/Senior Environmental Consultant

Attachments: Tables
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cc: Mr. Stephen Evanoff, AIMCO

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TABLES

Table 1
Tabulated Water Level Measurements
Groundwater Level Date: June 15, 2009
Michigan Plaza
3801-3823 West Michigan Street
Indianapolis, Indiana
MUNDELL Project No. M01046

Monitoring Well	Date of Water Level	Top of Casing Elevation (feet MSL)	Total Depth (feet)	Depth To Water (feet)	Groundwater Elevation (feet MSL)
On-Site Monitoring Wells					
MMW-P-01	6/15/2009	715.79	28	17.44	698.35
MMW-P-02	6/15/2009	716.70	30	18.38	698.32
MMW-P-03S	6/15/2009	716.55	28	18.25	698.30
MMW-P-03D	6/15/2009	716.45	35	18.15	698.30
MMW-P-04	6/15/2009	716.27	28	18.01	698.26
MMW-P-05	6/15/2009	716.12	28	18.83	697.29
MMW-P-06	6/15/2009	716.50	28	18.17	698.33
MMW-P-07	6/15/2009	715.30	28	16.54	698.76
MMW-P-08	6/15/2009	715.22	28	16.50	698.72
MMW-P-10S	6/15/2009	714.59	28	16.50	698.09
MMW-P-10D	6/15/2009	714.98	38	16.74	698.24
Off-Site Monitoring Well (Olin-Cossell ROW)					
MMW-P-09S	6/15/2009	715.36	28	18.20	697.16
MMW-P-09D	6/15/2009	715.21	45	18.04	697.17
Off-Site Monitoring Wells (Keramida)					
MW-167S	6/15/2009	716.25	22	17.02	699.23
MW-167D	6/15/2009	716.25	33	17.20	699.05
MW-168S	6/15/2009	714.79	22	16.80	697.99
MW-168D	6/15/2009	714.71	31	16.71	698
MW-169S	6/15/2009	715.95	25	18.12	697.83
MW-169D	6/15/2009	715.23	38	18.13	697.1
MW-170S	6/15/2009	717.40	27	18.63	698.77
MW-170D	6/15/2009	717.34	39	18.54	698.8
MW-171S	6/15/2009	711.83	22	14.52	697.31
MW-171D	6/15/2009	711.88	49	14.68	697.2
Off-Site Monitoring Wells (Michigan Meadows Apartments)					
MMW-1S	6/15/2009	713.66	20	14.76	698.9
MMW-2S	6/15/2009	713.43	20	14.19	699.24
MMW-3S	6/15/2009	711.58	30	11.80	699.78
MMW-4D	6/15/2009	711.64	66	12.63	699.01
MMW-5D	6/15/2009	711.75	51	12.73	699.02
MMW-6D	6/15/2009	712.68	51	13.44	699.24
MMW-7S	6/15/2009	712.35	26	13.08	699.27
MMW-8S	6/15/2009	714.75	24	15.61	699.14
MMW-9S	6/15/2009	714.09	25	15.85	698.24
MMW-10S	6/15/2009	713.23	25	15.01	698.22
MMW-11S	6/15/2009	713.69	33	14.64	699.05
MMW-11D	6/15/2009	713.64	33	14.73	698.91
MMW-12S	6/15/2009	712.82	24	13.98	698.84
MMW-13D	6/15/2009	713.53	50	13.45	700.08
MMW-14D	6/15/2009	712.61	50	13.81	698.8
Monitoring Wells Installed 2008					
MW-C-01	6/15/2009	715.36	28	17.24	698.12
MW-C-02	6/15/2009	715.21	45	17.7	697.51

* Corrected for the presence of 3.77 feet of CAP-18™ (density of 0.96) vegetable oil in well.

Table 2
Monitoring Well Construction Summary
Michigan Plaza
3801-3823 West Michigan Street
Indianapolis, Indiana
MUNDELL Project No. M01046

Monitoring Well	Date Installed	Date of Water Level	*Top of Casing Elevation (feet MSL)	Total Depth (feet)	Screened Interval (feet)			Depth To Water (feet)	Groundwater Elevation (feet MSL)
MMW-P-01	09/28/05	9/19/07	715.79	28.00	18.00	-	28.00	19.69	696.10
MMW-P-02	09/27/05	9/19/07	716.70	30.00	20.00	-	30.00	20.90	695.80
MMW-P-03S	09/26/05	9/19/07	716.55	28.00	18.00	-	28.00	20.79	695.76
MMW-P-03D	09/27/05	9/19/07	716.45	35.00	25.00	-	35.00	20.63	695.82
MMW-P-04	09/26/05	9/19/07	716.27	28.00	18.00	-	28.00	20.49	695.78
MMW-P-05	09/26/05	9/19/07	716.12	28.00	18.00	-	28.00	20.14	695.98
MMW-P-06	09/28/05	9/19/07	716.50	28.00	18.00	-	28.00	20.57	695.93
MMW-P-07	01/11/07	9/19/07	715.30	28.00	18.00	-	28.00	18.84	696.46
MMW-P-08	01/11/07	9/19/07	715.22	28.00	18.00	-	28.00	18.61	696.61
MMW-P-09S	01/29/07	9/19/07	715.36	28.00	18.00	-	28.00	20.17	695.19
MMW-P-09D	05/31/07	9/19/07	715.21	45.00	35.00	-	45.00	20.35	694.86
MMW-P-10S	06/01/07	9/19/07	714.59	28.00	18.00	-	28.00	18.30	696.29
MMW-P-10D	06/01/07	9/19/07	714.98	38.00	28.00	-	38.00	18.69	696.29

Note: The top of casing elevation for each well was determined assuming a surveyed top of casing elevation of 712.54 ft elevation given in the Keramida Phase II Investigation Report dated March 2002 for well MW-165S (located along Michigan Meadows Apartm

Table 2a
Monitoring Well Construction Summary
Michigan Apartments
3801-3823 West Michigan Street
Indianapolis, Indiana
MUNDELL Project No. M01046

Monitoring Well	Date Installed	Date of Water Level	*Top of Casing Elevation (feet MSL)	Total Depth (feet)	Screened Interval (feet)			Depth To Water (feet)	Groundwater Elevation (feet MSL)
MMW-1S	8/20/04	9/19/07	713.66	20.00	10.00	-	20.00	16.36	697.30
MMW-8S	1/11/07	9/19/07	714.75	24.00	14.00	-	24.00	17.41	697.34
MMW-9S	1/12/07	9/19/07	714.09	25.00	15.00	-	25.00	17.45	696.64
MMW-10S	1/12/07	9/19/07	713.23	25.00	15.00	-	25.00	16.17	697.06
MMW-11D	5/31/07	9/19/07	713.69	33.00	23.00	-	33.00	16.43	697.26
MMW-11S	11/26/08	NM	713.64	24.00	14.00	-	24.00	NM	NA
MMW-12S	11/26/08	NM	712.82	28.00	18.00	-	28.00	NM	NA
MMW-13D	11/21/08	NM	713.53	50.00	35.00	-	50.00	NM	NA
MMW-14D	12/10/08	NM	712.61	50.00	40.00	-	50.00	NM	NA

Note: The top of casing elevation for each well was determined assuming a surveyed top of casing elevation of 712.54 ft elevation given in the Keramida Phase II Investigation Report dated March 2002 for well MW-165S (located along Michigan Meadows Apartm

NM: Not Measured

NA: Not Available

Table 3
Monitoring Well Groundwater Analytical Results
Quarter 2 (2009)
Michigan Plaza
Indianapolis, Indiana

Well ID	Sample Date	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Chloroform	Vinyl chloride
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Monitoring Wells (Apts)							
MMW-1S	6/16/2009	237	13.4	<5.0	<5.0	<5.0	<2.0
MMW-2S	6/15/2009	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
MMW-3S	6/15/2009	<5.0	15.3	11.7	<5.0	<5.0	3
MMW-4D	6/15/2009	<5.0	<5.0	892	7	<5.0	142
MMW-5D	6/15/2009	<5.0	<5.0	1,110	14.5	<5.0	242
MMW-6D	6/15/2009	<5.0	<5.0	8.6	<5.0	<5.0	111
MMW-7S	6/15/2009	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
MMW-8S	6/16/2009	<5.0	<5.0	94.3	6.1	<5.0	280
MMW-9S	6/16/2009	44.5	24.9	4,810	64	<5.0	876
MMW-10S	6/16/2009	22.8	15.4	415	12	<5.0	81.4
MMW-11S	6/16/2009	<5.0	<5.0	253	17.9	<5.0	2.8
MMW-11D	6/16/2009	<5.0	<5.0	25.3	6.7	<5.0	<2.0
MMW-12S	6/16/2009	<5.0	<5.0	9.7	<5.0	<5.0	6.5
MMW-13D Low (44'-47')	6/16/2009	<5.0	<5.0	613	10.4	<5.0	17.3
MMW-13D Medium (29')	6/16/2009	<5.0	<5.0	578	12.1	<5.0	14.9
MMW-13D High (17')	6/16/2009	<5.0	<5.0	597	9.7	<5.0	21.1
MMW-14D	6/16/2009	<5.0	<5.0	648	15.6	<5.0	57.6
Monitoring Wells (Plaza)							
MMW-P-01	6/17/2009	<50.0	<50.0	4,020	63.9	<50.0	1,840
MMW-P-02	6/17/2009	5.1	<5.0	54.2	9.2	<5.0	80.6
MMW-P-03S	6/17/2009	<5.0	<5.0	332	22.3	<5.0	759
MMW-P-03D	6/17/2009	<5.0	<5.0	14.9	5.9	<5.0	137
MMW-P-04	6/17/2009	35.3	5.4	827	22	<5.0	2
MMW-P-05	6/17/2009	<5.0	<5.0	10.9	6.6	<5.0	<2.0
MMW-P-06	6/17/2009	<5.0	<5.0	145	22.2	<5.0	90.6
MMW-P-07	6/17/2009	<5.0	<5.0	87.1	9.4	<5.0	1,130
MMW-P-08	6/17/2009	<125	<125	356	145	<5.0	7,200
MMW-P-09S	6/16/2009	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
MMW-P-09D	6/16/2009	<5.0	<5.0	<5.0	<5.0	<5.0	73.5
MMW-P-10S	6/17/2009	<5.0	<5.0	331	20.5	<5.0	63.9
MMW-P-10D	6/17/2009	<5.0	<5.0	3,710	9.6	<5.0	9,070
Keramida Monitoring Wells (Off-site)							
MMW-167S	6/17/2009	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
MMW-167D	6/17/2009	<5.0	<5.0	612	22.1	<5.0	23.8
MW-168S	6/17/2009	NS	NS	NS	NS	NS	NS
MW-168D	6/18/2009	<5.0	<5.0	<5.0	<5.0	<5.0	14.5
MW-169S	NS	NS	NS	NS	NS	NS	NS
MW-169D	NS	NS	NS	NS	NS	NS	NS
MMW-170S	6/17/2009	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
MMW-170D	6/17/2009	<5.0	<5.0	<5.0	<5.0	<5.0	174
MMW-171S	NS	NS	NS	NS	NS	NS	NS
MMW-171D	6/16/2009	<5.0	<5.0	<5.0	<5.0	<5.0	2.2
Floral Park Monitoring Wells (Off-site)							
MMW-C-01	6/18/2009	23.2	<5.0	<5.0	<5.0	<5.0	<2.0
MMW-C-02	6/18/2009	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
IDEML RISC Default Industrial Cleanup Level		55	31	1,000	2,000	1,000	4
IDEML RISC Default Residential Cleanup Level		5	5	70	100	80	2

Table 4
Historical Monitoring Well Groundwater Analytical and Geochemical Results
Michigan Plaza
Indianapolis, Indiana
MUNDELL Job No.: M01046

Well ID	Sample Date	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Chloroform	Vinyl chloride
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Monitoring Wells (Apts)							
MMW-1S	9/10/2004	3.1 J	<5.0	<5.0	<5.0	<5.0	4.1
	3/15/2005	150	10	<5.0	<5.0	<5.0	<2.0
	11/9/2005	130	8.3	<5.0	<5.0	<5.0	8.9
	9/5/2006	200	13	<5.0	<5.0	<5.0	4.6
	2/22/2007	220	14.9	<5.0	<5.0	<5.0	<2.0
	6/14/2007	240	<5.0	<5.0	<5.0	<5.0	<2.0
	9/19/2007	362	10.5	<5.0	<5.0	31.6	<2.0
	12/13/2007	330	8.1	<5.0	<5.0	27	<2.0
	3/21/2008	280	14	<5.0	<5.0	<5.0	<2.0
	6/6/2008	277	13.2	<5.0	<5.0	<5.0	<2.0
	9/11/2008	288	14.7	<5.0	<5.0	<5.0	<2.0
	11/20/2008	223	45.5	169	<5.0	<5.0	14.5
	3/16/2009	199	11.3	<5.0	<5.0	<5.0	<2.0
	6/16/2009	237	13.4	<5.0	<5.0	<5.0	<2.0
MMW-2S	9/10/2004	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	11/9/2005	<5.0	<5.0	<5.0	<5.0	<5.0	5.2
	9/5/2006	<5.0	<5.0	<5.0	<5.0	<5.0	5.2
	6/2/2008	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	6/15/2009	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
MMW-3S	8/26/2004	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	9/10/2004	<5.0	5.2	<5.0	<5.0	<5.0	<2.0
	11/9/2005	<5.0	28	5.4	<5.0	<5.0	<2.0
	9/5/2006	<5.0	23	7.4	<5.0	<5.0	<2.0
	6/2/2008	<5.0	20.2	7.9	<5.0	<5.0	2.8
	6/15/2009	<5.0	15.3	11.7	<5.0	<5.0	3
MMW-4D	8/25/2004	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	9/10/2004	<5.0	<5.0	980	<5.0	<5.0	200
	11/10/2005	<5.0	<5.0	850	<5.0	<5.0	240
	9/5/2006	<5.0	<5.0	1,100	2.3J	<5.0	220
	6/2/2008	<5.0	<5.0	515	<5.0	<5.0	32.2
	6/15/2009	<5.0	<5.0	892	7	<5.0	142
MMW-5D	8/24/2004	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	9/10/2004	<5.0	<5.0	3400	13	<5.0	270
	11/10/2005	<5.0	<5.0	3900	19	<5.0	140
	9/5/2006	<50	<50	2500	<50	<5.0	170
	6/2/2008	<5.0	<5.0	1360	19.9	<5.0	207
	6/15/2009	<5.0	<5.0	1110	14.5	<5.0	242
MMW-6D	9/10/2004	<5.0	<5.0	540	<5.0	<5.0	400
	11/10/2005	<5.0	<5.0	750	<5.0	<5.0	700
	9/5/2006	<5.0	<5.0	300	<5.0	<5.0	440
	6/2/2008	<5.0	<5.0	65.5	<5.0	<5.0	242
	6/15/2009	<5.0	<5.0	8.6	<5.0	<5.0	111
MMW-7S	8/24/2004	<5.0	<5.0	28	<5.0	<5.0	<2.0
	9/10/2004	<5.0	<5.0	8.5	<5.0	<5.0	<2.0
	11/9/2005	<5.0	<5.0	9.5	<5.0	<5.0	<2.0
	9/5/2006	<5.0	<5.0	5.8	<5.0	<5.0	4.5
	6/2/2008	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	6/15/2009	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
IDEML RISC Default Industrial Cleanup Level - 2006		55	31	1,000	2,000	1,000	4
IDEML RISC Default Residential Cleanup Level - 2006		5	5	70	100	80	2

Note:

All Values Over IDEML RISC Default Industrial Cleanup Level in **RED**

All Values Over IDEML RISC Default Residential Cleanup Level in **BLUE**

PCE = Tetrachloroethene; TCE = Trichloroethene; cis-1,2-DCE = cis-1,2-Dichloroethene; trans-1,2-DCE = trans-1,2-Dichloroethene

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Table 4
Historical Monitoring Well Groundwater Analytical and Geochemical Results
Michigan Plaza
Indianapolis, Indiana
MUNDELL Job No.: M01046

Well ID	Sample Date	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Chloroform	Vinyl chloride
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MMW-8S	2/22/2007	114	<5.0	289	13.8	<5.0	40.6
	6/14/2007	15.9	<5.0	364	9.5	<5.0	82.1
	9/19/2007	<5.0	<5.0	778	24.6	<5.0	145
	12/13/2007	7.7	<5.0	1,000	7.4	<5.0	586
	3/20/2008	<5.0	<5.0	470	<5.0	<5.0	330
	6/6/2008	<5.0	<5.0	336	<5.0	<5.0	509
	9/10/2008	<5.0	<5.0	275	<5.0	<5.0	322
	11/20/2008	<5.0	<5.0	123	<5.0	<5.0	584
	3/16/2009	<5.0	<5.0	95	<5.0	<5.0	348
	6/16/2009	<5.0	<5.0	94.3	6.1	<5.0	280
MMW-9S	2/22/2007	782	88.6	78.9	<5.0	<5.0	<2.0
	6/14/2007	858	85.7	65.3	<5.0	<5.0	<2.0
	9/20/2007	1,430	112	70.3	8.2	<5.0	<2.0
	12/12/2007	37.9 J	17.9 J	1,700	29.8 J	<50.0	<20.0
	3/21/2008	57	20	2,900	39	<5.0	16
	6/6/2008	52.9	28	1,540	38.2	<5.0	295
	9/10/2008	52.6	22.7	4,920	94.5	<5.0	167
	11/20/2008	<5.0	<5.0	5,820	90.2	<5.0	1,010
	3/16/2009	<50.0	<50.0	7,490	73.8	<50.0	1,800
	6/16/2009	44.5	24.9	4,810	64	<5.0	876
MMW-10S	2/22/2007	49.6	<5.0	<5.0	<5.0	<5.0	<2.0
	6/14/2007	77.6	<5.0	<5.0	<5.0	<5.0	<2.0
	9/19/2007	66	<5.0	<5.0	<5.0	<5.0	<2.0
	12/12/2007	124	56	149	<5.0	<5.0	<2.0
	3/21/2008	440	12	8.1	<5.0	<5.0	12
	6/6/2008	541	62.1	218	<5.0	<5.0	30.4
	9/10/2008	6.9	<5.0	353	8.2	<5.0	<2.0
	11/20/2008	<5.0	<5.0	212	<5.0	<5.0	15.9
	3/16/2009	<5.0	<5.0	302	<5.0	<5.0	114
	6/16/2009	22.8	15.4	415	12	<5.0	81.4
MMW-11S	6/14/2007	<5.0	<5.0	225	6.8	<5.0	18.6
	9/19/2007	<5.0	<5.0	442	21.1	<5.0	30.1
	12/13/2007	7.2	<5.0	920	27	<5.0	49
	3/20/2008	<5.0	<5.0	420	17	<5.0	4.9
	6/5/2008	<5.0	<5.0	623	23.1	<5.0	26.7
	9/10/2008	<5.0	<5.0	327	18.3	<5.0	9.9
	11/20/2008	<5.0	<5.0	554	23.9	<5.0	18.5
	3/16/2009	<5.0	<5.0	37.6	<5.0	<5.0	<2.0
	6/16/2009	<5.0	<5.0	253	17.9	<5.0	2.8
MMW-11D	6/16/2009	<5.0	<5.0	25.3	6.7	<5.0	<2.0
MMW-12S	6/16/2009	<5.0	<5.0	9.7	<5.0	<5.0	6.5
MMW-13D Low (44'-47')	6/16/2009	<5.0	<5.0	613	10.4	<5.0	17.3
MMW-13D Medium (29')	6/16/2009	<5.0	<5.0	578	12.1	<5.0	14.9
MMW-13D High (17')	6/16/2009	<5.0	<5.0	597	9.7	<5.0	21.1
MMW-14D	6/16/2009	<5.0	<5.0	648	15.6	<5.0	57.6
IDEML RISC Default Industrial Cleanup Level - 2006		55	31	1,000	2,000	1,000	4
IDEML RISC Default Residential Cleanup Level - 2006		5	5	70	100	80	2

Note:

All Values Over IDEML RISC Default Industrial Cleanup Level in RED

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Historical Monitoring Well Groundwater Analytical and Geochemical Results
Michigan Plaza
Indianapolis, Indiana
MUNDELL Job No.: M01046

Well ID	Sample Date	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Chloroform	Vinyl chloride
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Monitoring Wells (Plaza)							
MMW-P-01	11/9/2005	33	210	160	9.6	<5.0	76
	2/22/2007	85.2	356	274	16.7	<5.0	28.7
	6/14/2007	111	368	350	10	<5.0	79.6
	9/20/2007	206	322	300	11.5	<5.0	127
	12/14/2007	230	320	240	7.1	<5.0	87
	3/21/2008	120	170	3,100	25	<5.0	42
	6/5/2008	22	31.5	3,660	68.6	<5.0	123
	9/11/2008	14.2	15.1	1,690	<5.0	<5.0	87.7
	11/19/2008	<5.0	<5.0	4,320	<5.0	<5.0	116
	3/17/2009	17.5	22.6	12,300	143	<5.0	3,290
MMW-P-02	6/17/2009	<50.0	<50.0	4,020	63.9	<50.0	1,840
	11/8/2005	24	<5.0	87	7.3	<5.0	49
	2/22/2007	184	<5.0	39.4	<5.0	<5.0	27.4
	6/14/2007	17.1	<5.0	35	<5.0	<5.0	27.5
	9/19/2007	13.3	<5.0	66.3	5.6	<5.0	50.1
	12/13/2007	7.8	<5.0	69	<5.0	<5.0	53
	3/20/2008	19	<5.0	67	<5.0	<5.0	42
	6/5/2008	94.9	<5.0	44	<5.0	<5.0	46.4
	9/11/2008	17.5	<5.0	46.6	<5.0	<5.0	42
	11/19/2008	10.7	<5.0	75.4	<5.0	<5.0	69.5
MMW-P-03S	3/17/2009	23.4	<5.0	65.4	5.3	<5.0	68.4
	6/17/2009	5.1	<5.0	54.2	9.2	<5.0	80.6
	11/9/2005	110	<5.0	97	9.6	<5.0	<2.0
	2/22/2007	397	<5.0	105	10	<5.0	<2.0
	6/14/2007	256	<5.0	96.4	9.2	<5.0	9.3
	9/20/2007	144	<5.0	131	15.8	<5.0	16
	12/13/2007	67	<5.0	88	5.3	<5.0	15
	3/20/2008	130	<5.0	84	7.3	<5.0	10
	6/5/2008	19.4	<5.0	380	14.9	<5.0	10.6
	9/11/2008	<5.0	<5.0	<5.0	<5.0	<5.0	72.6
MMW-P-03D	11/19/2008	<5.0	<5.0	494	<5.0	<5.0	40.8
	3/17/2009	7.5	<5.0	904	38.7	<5.0	283
	6/17/2009	<5.0	<5.0	332	22.3	<5.0	759
	11/9/2005	22	<5.0	42	<5.0	<5.0	2
	2/22/2007	48.9	<5.0	57.8	<5.0	39	15.6
	6/14/2007	21.7	<5.0	74.9	<5.0	<5.0	34.5
	9/19/2007	14.3	<5.0	76.1	7.3	<5.0	36.6
	12/13/2007	11	<5.0	40	<5.0	<5.0	20
	3/20/2008	<5.0	<5.0	170	6	<5.0	18
	6/5/2008	<5.0	<5.0	150	7.4	<5.0	26
MMW-P-04	9/11/2008	<5.0	<5.0	95.7	6.4	<5.0	<2
	11/19/2008	<5.0	<5.0	80.6	<5.0	<5.0	36.9
	3/17/2009	<5.0	<5.0	65.2	<5.0	<5.0	69.8
	6/17/2009	<5.0	<5.0	14.9	5.9	<5.0	137
	11/9/2005	180	<5.0	<5.0	<5.0	<5.0	<2.0
	2/22/2007	315	<5.0	<5.0	<5.0	<5.0	<2.0
	6/14/2007	268	<5.0	<5.0	<5.0	<5.0	<2.0
	9/20/2007	214	<5.0	<5.0	<5.0	<5.0	<2.0
	12/13/2007	62	<5.0	<5.0	<5.0	<5.0	<2.0
	3/20/2008	120	<5.0	<5.0	<5.0	<5.0	<2.0
IDEM RISC Default Industrial Cleanup Level - 2006	6/6/2008	154	6	59.7	<5.0	<5.0	<2.0
	9/11/2008	31.9	<5.0	360	7.1	<5.0	<2.0
	11/19/2008	45	<5.0	248	<5.0	<5.0	<2.0
	3/18/2009	19.4	5.4	304	10.8	<5.0	<2.0
	6/17/2009	35.3	5.4	827	22	<5.0	2
	IDE� RISC Default Residential Cleanup Level - 2006	55	31	1,000	2,000	1,000	4
	IDE� RISC Default Residential Cleanup Level - 2006	5	5	70	100	80	2

Note:

All Values Over IDE� RISC Default Industrial Cleanup Level in RED

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Michigan Plaza
Indianapolis, Indiana
MUNDELL Job No.: M01046

Well ID	Sample Date	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Chloroform	Vinyl chloride
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MMW-P-05	11/8/2005	<5.0	<5.0	6.2	<5.0	<5.0	<2.0
	2/22/2007	23.7	<5.0	9.1	<5.0	<5.0	<2.0
	6/14/2007	<5.0	<5.0	18.8	<5.0	<5.0	<2.0
	9/19/2007	<5.0	<5.0	18.8	<5.0	<5.0	<2.0
	12/14/2007	<5.0	<5.0	14.8	<5.0	<5.0	<2.0
	3/20/2008	<5.0	<5.0	8.1	<5.0	<5.0	<2.0
	6/5/2008	<5.0	<5.0	15.6	<5.0	<5.0	<2.0
	9/11/2008	<5.0	<5.0	16.7	<5.0	<5.0	<2.0
	11/19/2008	<5.0	<5.0	22.1	<5.0	<5.0	<2.0
	3/17/2009	<5.0	<5.0	13.7	<5.0	<5.0	<2.0
MMW-P-06	6/17/2009	<5.0	<5.0	10.9	6.6	<5.0	<2.0
	11/8/2005	<5.0	<5.0	200	24	<5.0	21
	2/22/2007	<5.0	<5.0	158	19.2	<5.0	<2.0
	6/14/2007	<5.0	<5.0	214	22.7	<5.0	13.3
	9/19/2007	<5.0	<5.0	283	38.2	<5.0	26.1
	12/14/2007	<5.0	<5.0	260	40	<5.0	31
	3/20/2008	<5.0	<5.0	250	31	<5.0	26
	6/5/2008	<5.0	<5.0	265	30.9	<5.0	40.1
	9/11/2008	<5.0	<5.0	271	33.3	<5.0	<2.0
	11/19/2008	<5.0	<5.0	292	<5.0	<5.0	61.4
MMW-P-07	3/17/2009	<5.0	<5.0	292	35.3	<5.0	<2.0
	6/17/2009	<5.0	<5.0	145	22.2	<5.0	90.6
	2/22/2007	3,060	81.5	82	8.8	<5.0	<2.0
	6/14/2007	2,850	90	82.5	<50.0	<50.0	<20.0
	9/20/2007	5,200	109	121	16.1	<5.0	2
	12/13/2007	1,440	157	930	8.8	7.4	80
	3/21/2008	31	7.6	1,700	27	<5.0	110
	6/5/2008	<5.0	<5.0	938	15.6	<5.0	466
	9/11/2008	<5.0	<5.0	1,870	55.2	<5.0	1,620
	11/19/2008	<5.0	<5.0	797	<5.0	<5.0	749
MMW-P-08	3/17/2009	<5.0	<5.0	361	17.7	<5.0	1,830
	6/17/2009	<5.0	<5.0	87.1	9.4	<5.0	1,130
	2/22/2007	6,280	281	240	26.7	<5.0	<2.0
	6/14/2007	6,440	310	169	<50.0	<50.0	<20.0
	9/20/2007	9,780	494	201	25.3	<5.0	6.5
	12/14/2007	390	210	5,800	<50.0	<50.0	<20.0
	3/21/2008	6.7	11	6,500	130	<5.0	55
	6/5/2008	<5.0	<5.0	<5.0	<5.0	<5.0	562
	9/11/2008	5.8	5	18,300	686	<50.0	4,740
	11/19/2008	<50.0	<50.0	5,690	91.4	<50.0	13,000
MMW-P-09S	3/17/2009	<5.0	<5.0	1,130	47.1	<5.0	5,680
	6/17/2009	<125	<125	356	145	<5.0	7,200
	2/22/2007	10.0	<5.0	<5.0	<5.0	<5.0	<2.0
	6/14/2007	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	9/19/2007	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	12/12/2007	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	3/20/2008	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	6/5/2008	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	9/11/2008	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	11/19/2008	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
IDEM RISC Default Industrial Cleanup Level - 2006		55	31	1,000	2,000	1,000	4
	IDEM RISC Default Residential Cleanup Level - 2006	5	5	70	100	80	2

Note:

All Values Over IDEM RISC Default Industrial Cleanup Level in RED

All Values Over IDEM RISC Default Residential Cleanup Level in BLUE

PCE = Tetrachloroethene; TCE = Trichloroethene; cis-1,2-DCE = cis-1,2-Dichloroethene; trans-1,2-DCE = trans-1,2-Dichloroethene

Green Shading indicates areas that appear to be undergoing reductive dechlorination due to CAP-18 Injections

"J" designation indicates concentration was estimated due to high concentration of one parameter requiring dilution on other parameter quantitations

"-" indicates geochemical parameter was not collected, "NV" indicates data was not valid due to equipment error

Table 4
Historical Monitoring Well Groundwater Analytical and Geochemical Results
Michigan Plaza
Indianapolis, Indiana
MUNDELL Job No.: M01046

Well ID	Sample Date	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Chloroform	Vinyl chloride
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MMW-P-09D	6/14/2007	<5.0	<5.0	<5.0	<5.0	<5.0	46.2
	9/19/2007	<5.0	<5.0	<5.0	<5.0	<5.0	83.1
	12/12/2007	<5.0	<5.0	<5.0	<5.0	<5.0	71
	3/20/2008	<5.0	<5.0	<5.0	<5.0	<5.0	3
	6/5/2008	<5.0	<5.0	<5.0	<5.0	<5.0	100
	9/11/2008	<5.0	<5.0	<5.0	<5.0	<5.0	72.6
	11/19/2008	<5.0	<5.0	<5.0	<5.0	<5.0	97.2
	3/17/2009	<5.0	<5.0	<5.0	<5.0	<5.0	85.1
	6/16/2009	<5.0	<5.0	<5.0	<5.0	<5.0	73.5
MMW-P-10S	6/14/2007	36.1	36.3	61.6	6.9	<5.0	<2.0
	7/6/2007	87.9	54.9	92.1	10.2	<5.0	<2.0
	9/19/2007	192	82.6	126	14.4	<5.0	<2.0
	12/14/2007	71	<5.0	<5.0	<5.0	<5.0	2.4
	3/20/2008	26.8	19.2	250	12.2	<5.0	<2.0
	6/5/2008	15	9.7	537	16	<5.0	114
	9/11/2008	74.8	36.5	1,650	74	<5.0	27.7
	11/19/2008	78.6	28	1,510	<5.0	<5.0	22.3
	3/17/2009	11.9	8.6	1,160	71.5	<5.0	<2.0
	6/17/2009	<5.0	<5.0	331	20.5	<5.0	63.9
MMW-P-10D	6/14/2007	<5.0	10.6	481	7.7	<5.0	98.7
	7/6/2007	<5.0	<5.0	498	9	<5.0	118
	9/19/2007	<5.0	<5.0	350	<5.0	<5.0	76.1
	12/14/2007	<5.0	<5.0	270	<5.0	<5.0	77
	3/20/2008	<5.0	<5.0	<5.0	<5.0	<5.0	3
	6/5/2008	<5.0	<5.0	508	<5.0	<5.0	267
	9/11/2008	<5.0	<5.0	435	<5.0	<5.0	288
	11/19/2008	<5.0	<5.0	3,390	<5.0	<5.0	5,030
	3/17/2009	<5.0	<5.0	4,860	12.9	<5.0	2,500
	6/17/2009	<5.0	<5.0	3,710	9.6	<5.0	9,070
IDE� RISC Default Industrial Cleanup Level - 2006		55	31	1,000	2,000	1,000	4
IDE� RISC Default Residential Cleanup Level - 2006		5	5	70	100	80	2

Note:

All Values Over IDE� RISC Default Industrial Cleanup Level in RED

All Values Over IDE� RISC Default Residential Cleanup Level in BLUE

PCE = Tetrachloroethene; TCE = Trichloroethene; cis-1,2-DCE = cis-1,2-Dichloroethene; trans-1,2-DCE = trans-1,2-Dichloroethene

Green Shading indicates areas that appear to be undergoing reductive dechlorination due to CAP-18 Injections

"J" designation indicates concentration was estimated due to high concentration of one parameter requiring dilution on other parameter quantitations

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Table 4
Historical Monitoring Well Groundwater Analytical and Geochemical Results
Michigan Plaza
Indianapolis, Indiana
MUNDELL Job No.: M01046

Well ID	Sample Date	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Chloroform	Vinyl chloride
		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Keramida Monitoring Wells (Off-site)							
MW-167S	11/7/2005	<5.0	<5.0	<5.0	<5.0		14
	6/5/2008	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	6/17/2009	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
MW167D	11/7/2005	<5.0	<5.0	750	<5.0		110
	6/5/2008	<5.0	<5.0	616	28	<5.0	43.8
	6/17/2009	<5.0	<5.0	612	22.1	<5.0	23.8
MW-168S	11/7/2005	280	16	53	<5.0	<5.0	3
	2/21/2007	30.1	8.8	155	<5.0	<5.0	29.6
	6/14/2007	<5.0	<5.0	40.8	<5.0	<5.0	34
	9/19/2007	32.6	8	82.4	<5.0	<5.0	3.5
	12/13/2007	52	14	78	<5.0	<5.0	4.1
	3/20/2008	92	12	46	<5.0	<5.0	4.2
	6/5/2008	80.4	10.1	41.1	<5.0	<5.0	3.6
	9/11/2008	68.5	10.8	66.9	<5.0	<5.0	5.5
MW-168D	11/7/2005	<5.0	<5.0	6.8	<5.0	<5.0	49
	2/21/2007	<5.0	<5.0	8.4	<5.0	<5.0	58.1
	6/14/2007	<5.0	<5.0	5.2	<5.0	<5.0	47.5
	9/19/2007	<5.0	<5.0	<5.0	<5.0	<5.0	89.7
	12/12/2007	<5.0	<5.0	<5.0	<5.0	<5.0	74
	3/20/2008	<5.0	<5.0	8	<5.0	<5.0	39
	6/5/2008	<5.0	<5.0	13.4	<5.0	<5.0	65.9
	9/11/2008	<5.0	<5.0	5.5	<5.0	<5.0	<2
	3/17/2009	<5.0	<5.0	16.5	<5.0	<5.0	<2.0
	6/18/2009	<5.0	<5.0	<5.0	<5.0	<5.0	14.5
MW-169S	11/7/2005	<5.0	<5.0	<5.0	<5.0	NA	<2.0
	6/5/2008	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
MW-169D	11/7/2005	<5.0	<5.0	<5.0	<5.0	NA	5.1
	6/5/2008	<5.0	<5.0	<5.0	<5.0	<5.0	14.3
MW-170S	6/3/2008	<5.0	<5.0	<5.0	<5.0	<5.0	5.5
	6/17/2009	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
MW-170D	6/3/2008	<5.0	<5.0	<5.0	<5.0	<5.0	230
	6/17/2009	<5.0	<5.0	<5.0	<5.0	<5.0	174
MW-171S	6/3/2008	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
MW-171D	6/3/2008	<5.0	<5.0	<5.0	<5.0	<5.0	3
	6/16/2009	<5.0	<5.0	<5.0	<5.0	<5.0	2.2
Floral Park Cemetery Wells (Off-site)							
MMW-C-01	11/20/2008	15.7	8.3	296	<5.0	<5.0	<2.0
	3/17/2009	<5.0	<5.0	508	7.3	<5.0	<2.0
	6/18/2009	23.2	<5.0	<5.0	<5.0	<5.0	<2.0
MMW-C-02	11/20/2008	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	3/17/2009	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
	6/18/2009	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0
IDEML RISC Default Industrial Cleanup Level - 2006		55	31	1,000	2,000	1,000	4
IDEML RISC Default Residential Cleanup Level - 2006		5	5	70	100	80	2

Note:

All Values Over IDEML RISC Default Industrial Cleanup Level in **RED**

All Values Over IDEML RISC Default Residential Cleanup Level in **BLUE**

PCE = Tetrachloroethene; TCE = Trichloroethene; cis-1,2-DCE = cis-1,2-Dichloroethene; trans-1,2-DCE = trans-1,2-Dichloroethene

Green Shading indicates areas that appear to be undergoing reductive dechlorination due to CAP-18 Injections

"J" designation indicates concentration was estimated due to high concentration of one parameter requiring dilution on other parameter quantitations

"-" indicates geochemical parameter was not collected, "NV" indicates data was not valid due to equipment error

TABLE 5a

AIR SAMPLING ANALYTICAL RESULTS - TO-15 SIM ANALYSIS

Sampling Events - April 2003, October 2004, September 2005, October 2006, April 2008, February 2009, March 2009

Further Site Characterization

Michigan Plaza Shopping Center

Indianapolis, Indiana

MUNDELL Project No. M01046

Sample ID	Sample Date	Tetrachloroethene (PCE)			Trichloroethene (TCE)			cis-1,2-Dichloroethene (cis-1,2-DCE)			Vinyl Chloride (VC)		
		ppb	ug/m ³	mg/m ³	ppb	ug/m ³	mg/m ³	ppb	ug/m ³	mg/m ³	ppb	ug/m ³	mg/m ³
PLAZA 3801 (Village Pantry)	4/25/2003	38	260	0.26	0.09	0.49	0.00049	ND	ND	ND	ND	ND	ND
	9/29/2005	26	180	0.18	0.07	0.39	0.00039	0.09	0.36	0.00036	0.98	2.50	0.0025
	10/12/2006	0.98	6.70	0.0067	ND	ND	ND	0.061	0.24	0.00024	0.10	0.27	0.0003
	4/14/2008	0.15	1.0	0.0010	ND	ND	ND	ND	ND	ND	0.079	0.20	0.00020
	2/26/2009	0.84	5.7	0.0057	ND	ND	ND	ND	ND	ND	0.460	1.20	0.00120
LIBRARY	4/25/2003	176.75	1,200	1.20	0.43	2.30	0.00230	0.09	0.36	0.00036	ND	ND	ND
FORMER LIBRARY	3/17/2009	1.70	11	0.01	ND	ND	ND	ND	ND	ND	1.10	2.90	0.0029
	6/17/2009	0.73	5.00	0.005	ND	<0.32	ND	ND	<0.73	ND	2.50	6.30	0.0063
PLAZA 3815 (Vacant)	4/25/2003	250	1,700	1.70	0.43	2.30	0.00230	0.08	0.33	0.00033	ND	ND	ND
	10/7/2004	18	120	0.12	0.16	0.86	0.00086	0.17	0.67	0.00067	0.73	1.90	0.0019
	9/29/2005	42	280	0.28	0.10	0.53	0.00053	0.36	1.40	0.00140	0.07	0.18	0.0002
	10/12/2006	3.6	25	0.03	ND	ND	ND	ND	ND	ND	ND	ND	ND
	4/14/2008	1.6	11	0.01	ND	ND	ND	ND	ND	ND	ND	ND	ND
	2/26/2009	1.8	12	0.01	ND	ND	ND	ND	ND	ND	0.051	0.13	0.00013
PLAZA 3817	4/25/2003	200	1,400	1.40	0.18	1.0	0.00100	0.03	0.18	0.00018	ND	ND	ND
PLAZA 3817 (AA Suite)	3/17/2009	1.00	7.00	0.007	ND	ND	ND	ND	ND	ND	0.16	0.40	0.0004
	6/17/2009	0.73	5.00	0.005	ND	<0.32	ND	ND	<0.73	ND	0.26	0.67	0.00067
PLAZA 3819 (Mexican Store)	10/7/2004	26	180	0.18	0.16	0.86	0.00086	0.17	0.67	0.00067	2.6	6.6	0.0066
	9/29/2005	75	510	0.51	0.08	0.45	0.00045	0.19	0.75	0.00075	1.6	4.10	0.0041
	10/12/2006	2.2	15	0.02	ND	ND	ND	0.06	0.22	0.00022	0.20	0.51	0.0005
	4/14/2008	1.30	8.8	0.009	ND	ND	ND	ND	ND	ND	0.14	0.35	0.0004
	2/26/2009	0.41	2.8	0.003	ND	ND	ND	ND	ND	ND	ND	ND	ND
PLAZA3819 (Mexican Store) (below slab)	10/7/2004	1.70	12	0.01	1.70	9.1	0.00910	0.96	3.80	0.00380	0.04	0.09	0.0001
PLAZA3823 (Laundromat)	10/12/2006	0.32	2.20	0.002	ND	ND	ND	ND	ND	ND	0.05	0.14	0.0001
PLAZA 3823 (Laundromat)	4/14/2008	0.35	2.30	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND
PLAZA 3823 (Laundromat)	2/26/2009	0.13	0.90	0.001	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ambient Air	10/12/2006	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ambient Air -West of Village Pantry on Fence	4/14/2008	0.13	0.90	0.001	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ambient Air -West of Village Pantry on Fence	2/26/2009	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.460	1.20	0.00120

Note: Results shown in **RED** exceed the draft U.S. EPA occupational guidance while results in bold **BLACK** and with blue **SHADING** exceed IDEM target occupational air concentrations.

Data on this table was originally presented as Table 6b in MUNDELL's Further Site Characterization Report, dated May 10, 2006

TABLE 5b
AIR SAMPLING ANALYTICAL RESULTS - TO-15 SIM ANALYSIS
Sampling Events - Soil Gas Monitoring Wells
Michigan Plaza Shopping Center & Michigan Meadows Apartments
Indianapolis, Indiana
MUNDELL Project No. M01046

Sample ID	Sample Date	Tetrachloroethene (PCE)			Trichloroethene (TCE)			cis-1,2-Dichloroethene (cis-1,2-DCE)			Vinyl Chloride (VC)		
		ppb	ug/m ³	mg/m3	ppb	ug/m ³	mg/m3	ppb	ug/m ³	mg/m3	ppb	ug/m ³	mg/m3
MGW-1	10/7/2004	0.26	1.8	0.0	0.079	0.42	0.00042	ND	ND	ND	0.2	0.51	0.00051
MGW-1	4/15/2008	0.08	0.55	0.001	0.06	0.29	0.00029	ND	ND	ND	ND	ND	ND
MGW-1	2/26/2009	4.80	32	0.032	1.30	6.80	0.00680	0.20	0.80	0.00080	ND	ND	ND
MGW-3	10/7/2004	0.31	2.1	0.0	0.068	0.37	0.00037	ND	ND	ND	ND	ND	ND
MGW-3	4/15/2008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MGW-3	2/26/2009	40.00	270	0.27000	7.40	40	0.04000	1.10	4.40	0.00440	0.29	0.73	0.00073
MGW-5	4/25/2003	18	120	0.12	297	1,600	1.60000	479	1,900	1.900	0.43	1.10	0.0011
MGW-5	10/7/2004	200	1400	1.40	730	3900	3.90000	730	2,900	2.900	0.60	1.50	0.0015
MGW-5	4/15/2008	680	4,600	4.60	660	3,600	3.60	230	910	0.91	ND	ND	ND
MGW-5	2/26/2009	2,100	14,000	14.00	1,100	5,800	5.80	330	1,300	1.30	790	2,000	2
MGW-5	6/17/2009	3,900	27,000	27.00	1,900	10,000	10.00	560	2,200	2.20	860	2,200	2.2

Note 1: The analytical results from the Gas Well (MGW) samples are not indicative of 'breathing zone' air quality, and comparison to published regulatory standards established for the breathing zone are included here for informational purposes only.

Note 2: Results shown in bold RED exceed the draft U.S. EPA occupational guidance while results shown in bold BLACK with blue SHADING exceed IDEM target occupational air concentrations.

TABLE 5c
AIR CONCENTRATION HEALTH-BASED LIMITS
 Further Site Characterization
 Michigan Plaza Shopping Center
 Indianapolis, Indiana
 MUNDELL Project No. M01046

Chemical Name	Carcinogen Classification ^a	Inhalation Reference Dose, RfD ^b (mg/kg-d)	Inhalation Cancer Slope Factor ^b (mg/kg/d) ⁻¹	Residential Life-Time Risk-Based Ambient Air Concentration, ^b (ug/m ³)	Occupational Life-Time Risk-Based Ambient Air Concentration, ^c (ug/m ³)	OSHA Permissible Exposure Limit, ^d (mg/m ³)	U.S. EPA Draft Guidance Target Residential Indoor Air Concentration, ^e (ug/m ³)	U.S. EPA Draft Guidance Target Occupational Indoor Air Concentration, ^f (ug/m ³)	IDEML Draft Default Residential Vapor Intrusion Concentration, ^g (ug/m ³)	IDEML Draft Default Occupational Vapor Intrusion Concentration, ^g (ug/m ³)
cis-1,2-Dichloroethylene (cis-1,2-DCE)	D	0.01	NA	37	62.2	790	35	58.8	37 (36.5)	51 (51.1)
Tetrachloroethylene (PCE)	B/C	0.14	0.021	0.33	7.12	678	8.1	13.61	3.2	6.8
Trichloroethylene (TCE)	B/C	0.011	0.4	0.017	0.37	537	0.22	0.37	1.2	7.9
Vinyl Chloride	A	0.029	0.031	0.16	4.75	2.56	2.8	4.7	2.2 (2.16040249)	8.9

^aIntegrated Risk Information System (RISC), U.S. Environmental Protection Agency (EPA)

^bEPA Region 6: Human Health Medium-Specific Screening Levels, 2003-2004; assumes a 10⁻⁶ excess target cancer risk

^cEPA Region 6: Human Health Medium-Specific Screening Levels, 2003-2004, adjusted for an occupational exposure (and 10⁻⁵ excess target cancer risk).

^dAs reported in the NIOSH Pocket Guide to Chemical Hazards, 2001

^eEPA Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils, November 20, 2002, based on residential exposures.

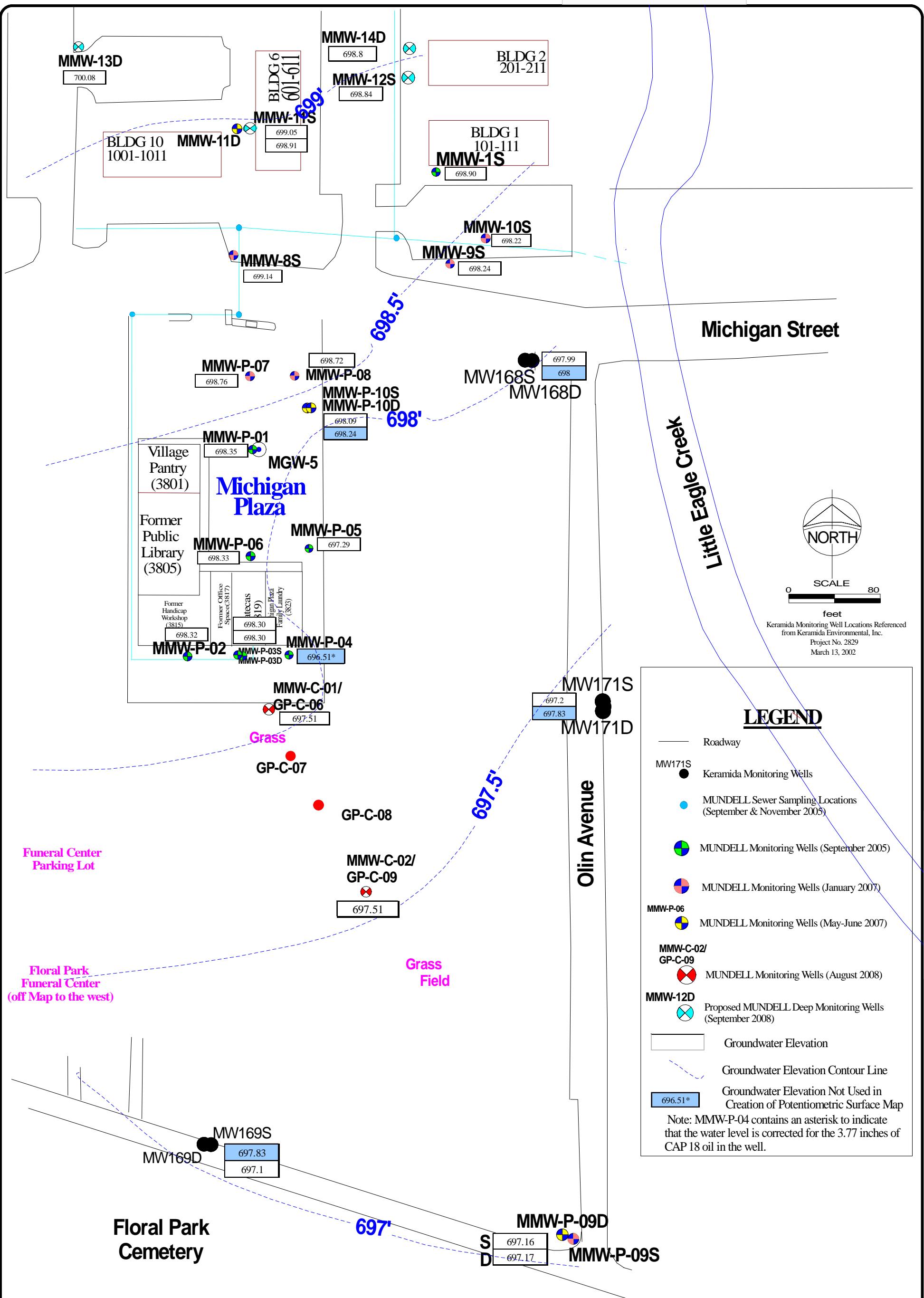
^fEPA Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils, November 20, 2002, based on occupational exposures.

^gIndiana Department of Environmental Management Chronic Vapor Intrusion Numbers - as recommended by Rod Thompson, toxicologist, IDEML on 11/10/2004; the numbers in parenthesis are from the IDEML distribution copy, May 2003

A = Human Carcinogen
 B = Probable human carcinogen
 C = Possible human carcinogen
 D = Not classifiable as to human carcinogenicity

NA - Not Applicable

FIGURES



MUNDELL & ASSOCIATES, INC.

Consulting Professionals for the Earth & Environment

110 South Downey Avenue
Indianapolis, Indiana 46219
317-630-9060, fax 317-630-9065

Project Number:
M01046

Drawing File:

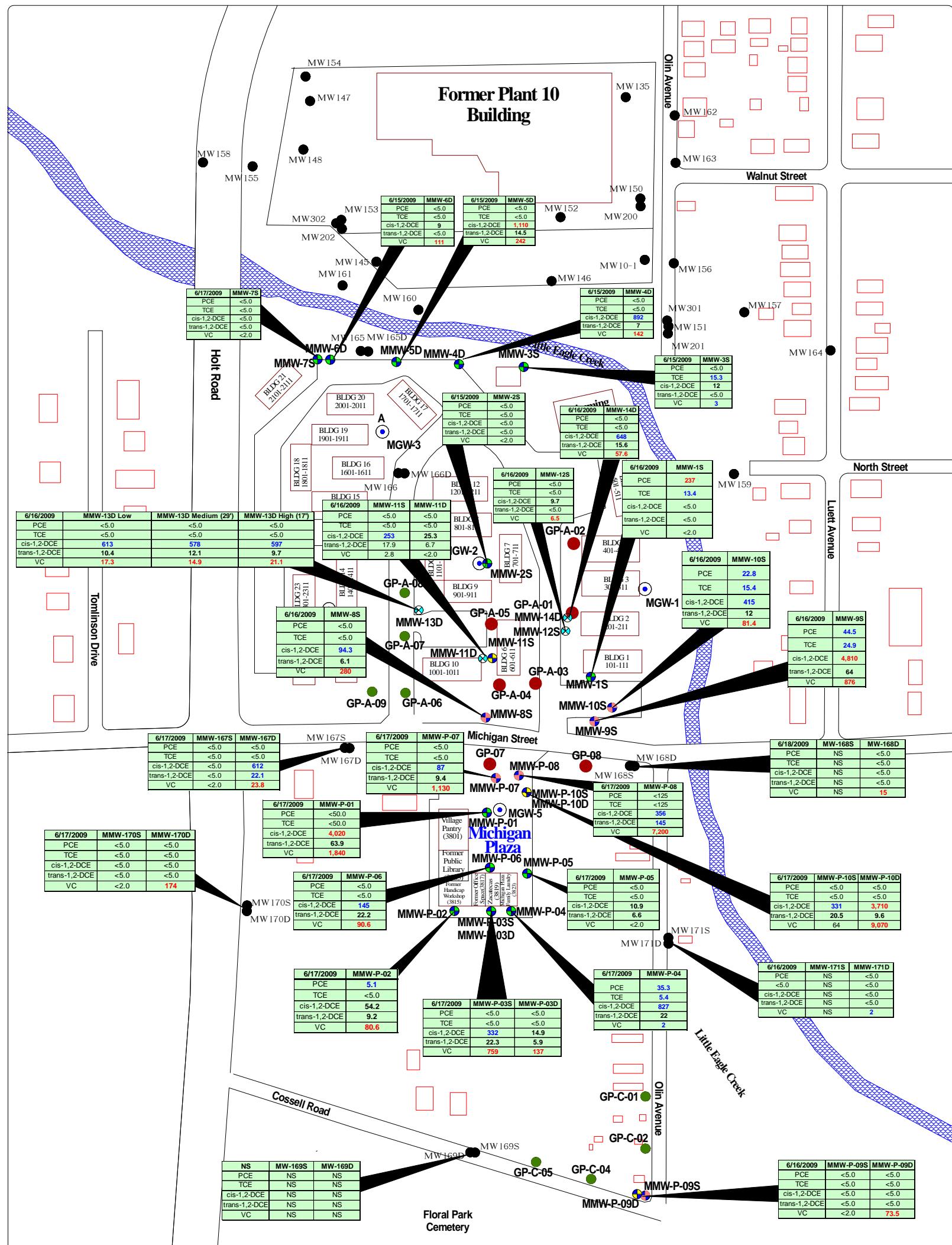
Date Prepared:
7/27/09

Scale:
1"=80'

Potentiometric Surface Map

Second Quarter 2009
Michigan Plaza
3801-3823 West Michigan Street
Indianapolis, Indiana

FIGURE
1

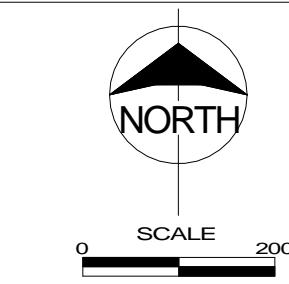


LEGEND

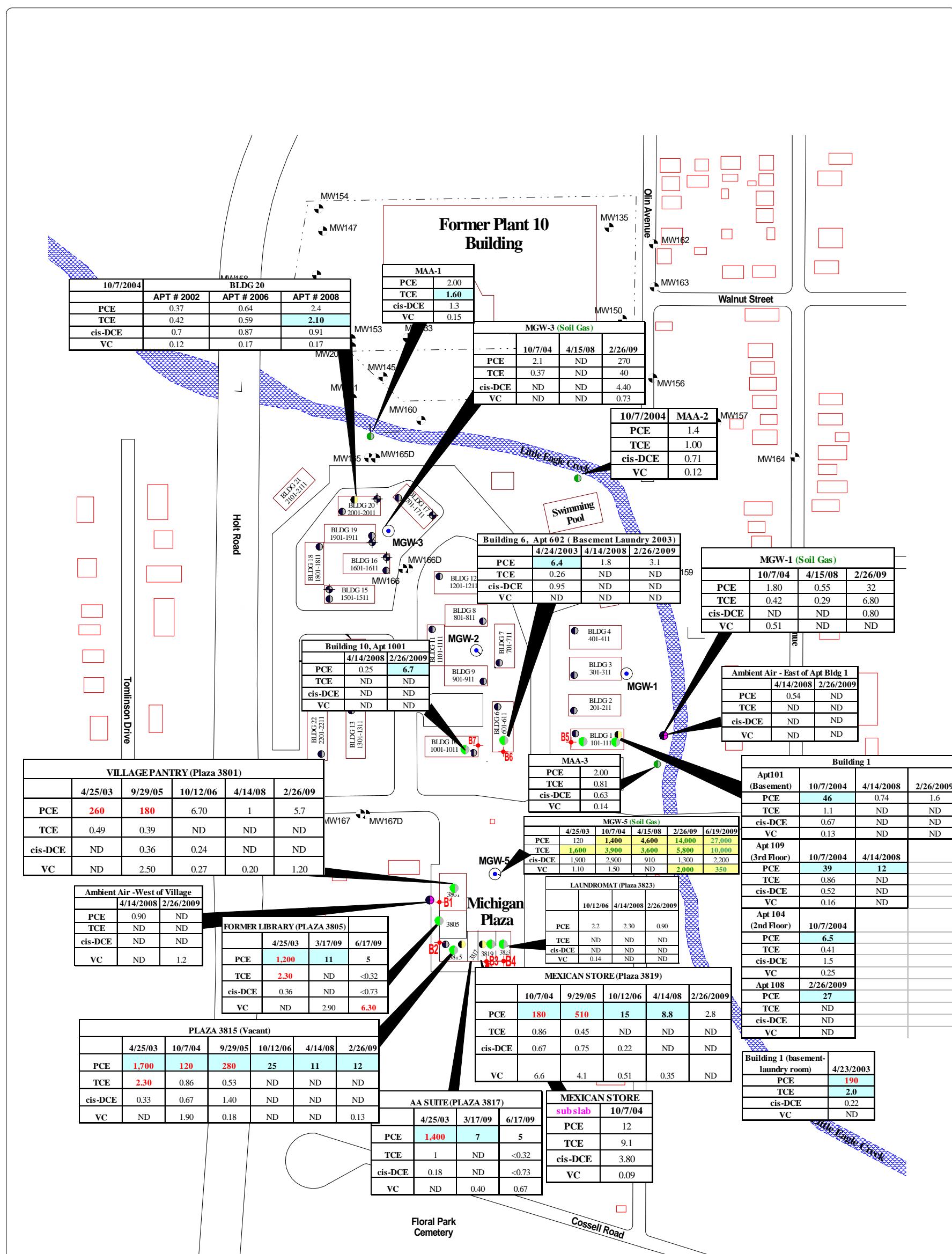
- Fence
- MW160 ● Keramida Monitoring Wells
- SS-P-01 ● MUNDELL Sewer Sampling Locations (September & November 2005)
- GP-07 ● MUNDELL Soil Boring Locations (September 2005)
- MMW-P-06 ● MUNDELL Monitoring Wells, Michigan Plaza (September 2005)
- GP-C-04 ● MUNDELL Soil Boring Locations (January 2007)
- MMW-P-07 ● MUNDELL Monitoring Wells (January 2007)
- MMW-11D ● MUNDELL Monitoring Wells (May-June 2007)
- MMW-11S ✕ MUNDELL Monitoring Wells (November 2008)

Project Number: M01046
 Drawing File: Base Map.SKF
 Date Prepared: 10/15/2009
 Scale: 1"=200'±

Groundwater Analytical Map
 2nd Quarter, 2009
 Sample Date: June 15-18, 2009
 Michigan Plaza
 3801-3823 West Michigan Street
 Indianapolis, Indiana



Keramida Monitoring Well Locations Referenced from Keramida Environmental, Inc.
 Project No. 2829
 March 13, 2002



LEGEND

- Fence
- Keramida Groundwater Monitoring Well
- MUNDELL Air Quality Sampling Location (Dec. 10, 2001)
- MUNDELL Air Quality Sampling Location (April 23 & 24, 2003)
- MUNDELL Ambient (outside) Air Quality Sampling Location (Oct. 2004)
- MUNDELL Indoor Air Quality Sampling Location (Oct. 2004)
- MUNDELL Below Slab Sampling Location (Oct. 2004)
- MUNDELL Indoor Air Quality Sampling Location (February/March 2009)
- MUNDELL Ambient (outside) Air Quality Sampling Location (February/ March 2009)
- MUNDELL Existing Air Mitigation System Locations (March 2009)
- MGW-5 Monitoring Gas Well

Results in RED exceed EPA guidance and those in SHADING exceed IDEM target indoor air residential/industrial concentrations (180)

Results in GREEN exceed EPA guidance and those in SHADING exceed IDEM target residential/ industrial concentrations (soil gas)

Keramida Monitoring Well Locations Referenced from Keramida Environmental, Inc.

Project No. 2829

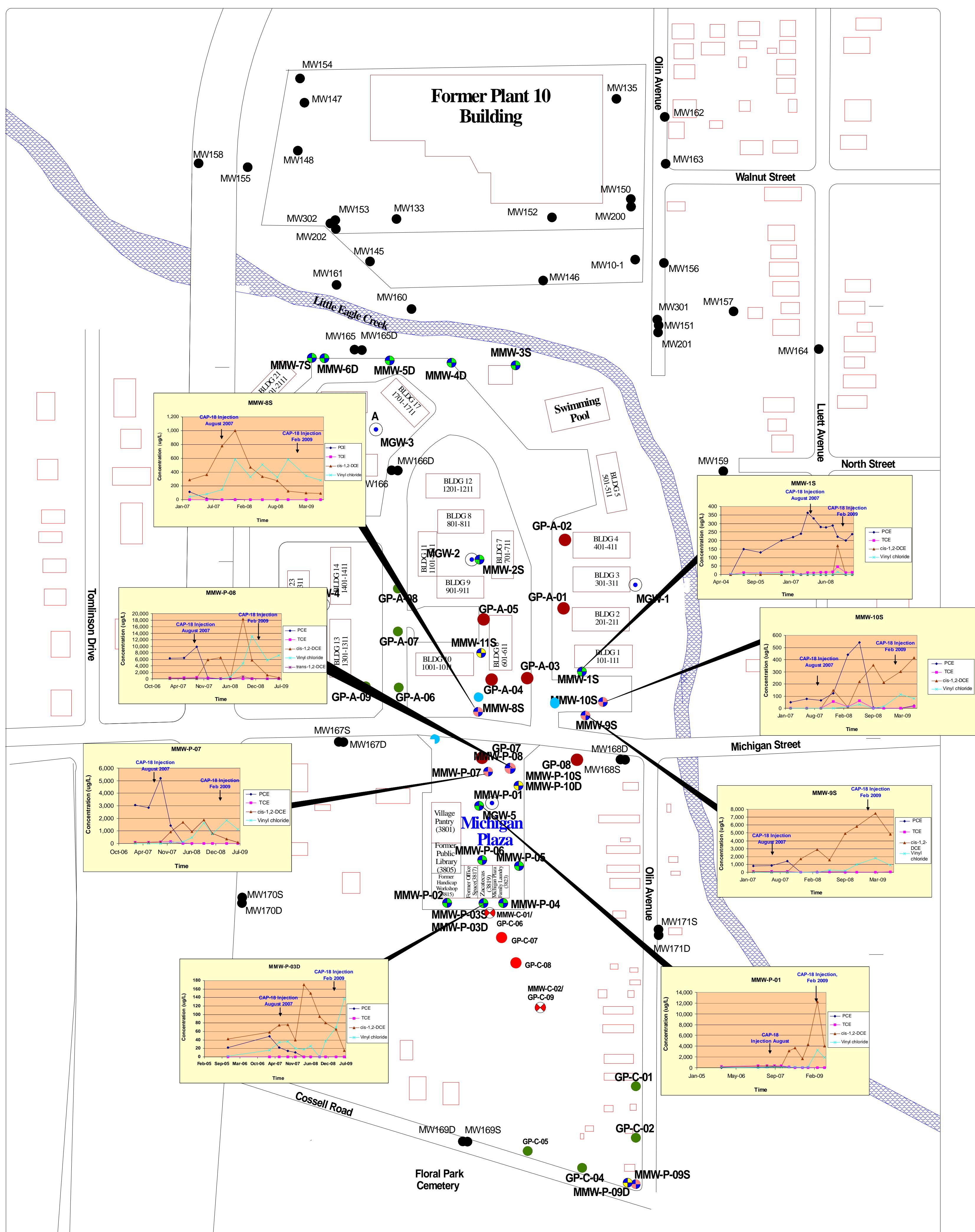
March 13, 2002

12/14/2009 6:38 PM

Project Number: M01046
Drawing File: Base Map.SKF
Date Prepared: 7/17/2009
Scale: 1"=200'

Recent & Historical Air Analytical Results
Michigan Apartments & Michigan Plaza
3800-3823 West Michigan Avenue
Indianapolis, Indiana

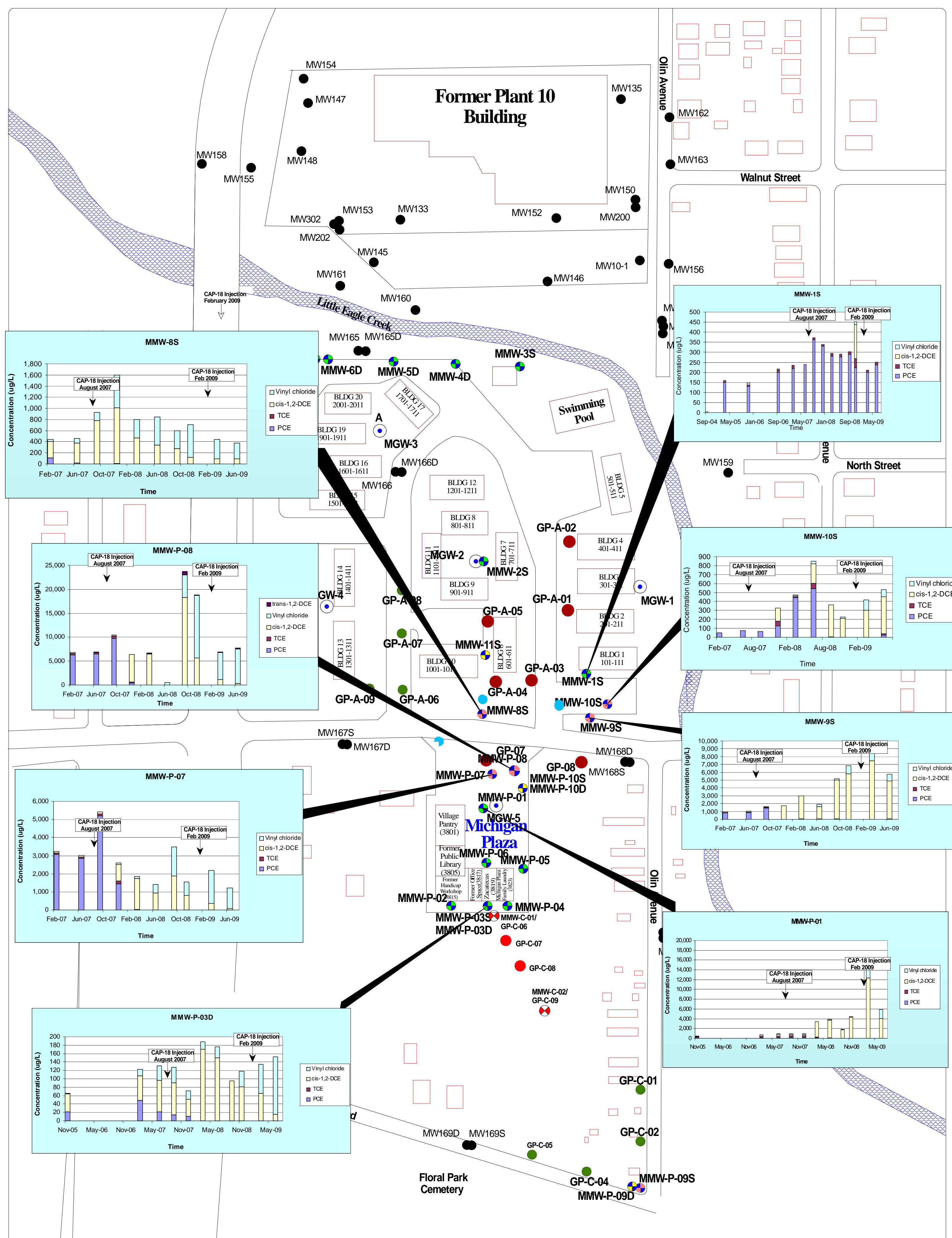
FIGURE
3



LEGEND

- Mundell Test Pit (TP-3) Sampling Locations (April 2005)
- Sewer Excavation Sampling Locations (October 2007)
- Fence
- Sewer Line
- MWW-11S** MUNDELL Monitoring Wells (May-June 2007)
- MW160** Keramida Monitoring Wells
- SS-P-01** MUNDELL Sewer Sampling Locations/manholes (September & November 2005)
- GP-07** MUNDELL Soil Boring Locations (September 2005)
- MWW-P-06** MUNDELL Monitoring Wells, Michigan Plaza (September 2005)
- GP-C-04** MUNDELL Soil Boring Locations (January 2007)
- MWW-P-07** MUNDELL Monitoring Wells (January 2007)
- MWW-C-01** MUNDELL Monitoring Wells (July/August 2008)
- GP-C-06** MUNDELL Soil Boring Locations (July/August 2008)

Keramida Monitoring Well Locations Referenced from Keramida Environmental, Inc.
Project No. 2829
March 13, 2002



LEGEND

- ## LEGEND
- Mundell Test Pit (TP-3) Sampling Locations (April 2005)
 - Sewer Excavation Sampling Locations (October 2007)
 - Fence
 - Sewer Line
 - MMW-11S  MUNDELL Monitoring Wells (May-June 2007)
 - MW160  Keramida Monitoring Wells
 - SS-P-01  MUNDELL Sewer Sampling Locations/manholes (September & November 2005)
 - GP-07  MUNDELL Soil Boring Locations (September 2005)
 - MMW-P-06  MUNDELL Monitoring Wells, Michigan Plaza (September 2005)
 - GP-C-04  MUNDELL Soil Boring Locations (January 2007)
 - MMW-P-07  MUNDELL Monitoring Wells (January 2007)
 - MMW-C-01 MUNDELL Monitoring Wells (July/August 2008)
 - GP-C-06 MUNDELL Soil Boring Locations (July/August 2008)

feet

Project No. 282
March 13, 2002

March 13, 2002

MUNDELL & ASSOCIATES, INC.

Consulting Professionals for the Earth & Environment

*110 South Downey Avenue
Indianapolis, Indiana 46219-6406*

Project Number:
M01046
Drawing File:
Base Map.SKF
Date Prepared:
6/2/2009
Scale:

**Parent and Daughter Products
Distribution in Groundwater**

Second Quarter 2009

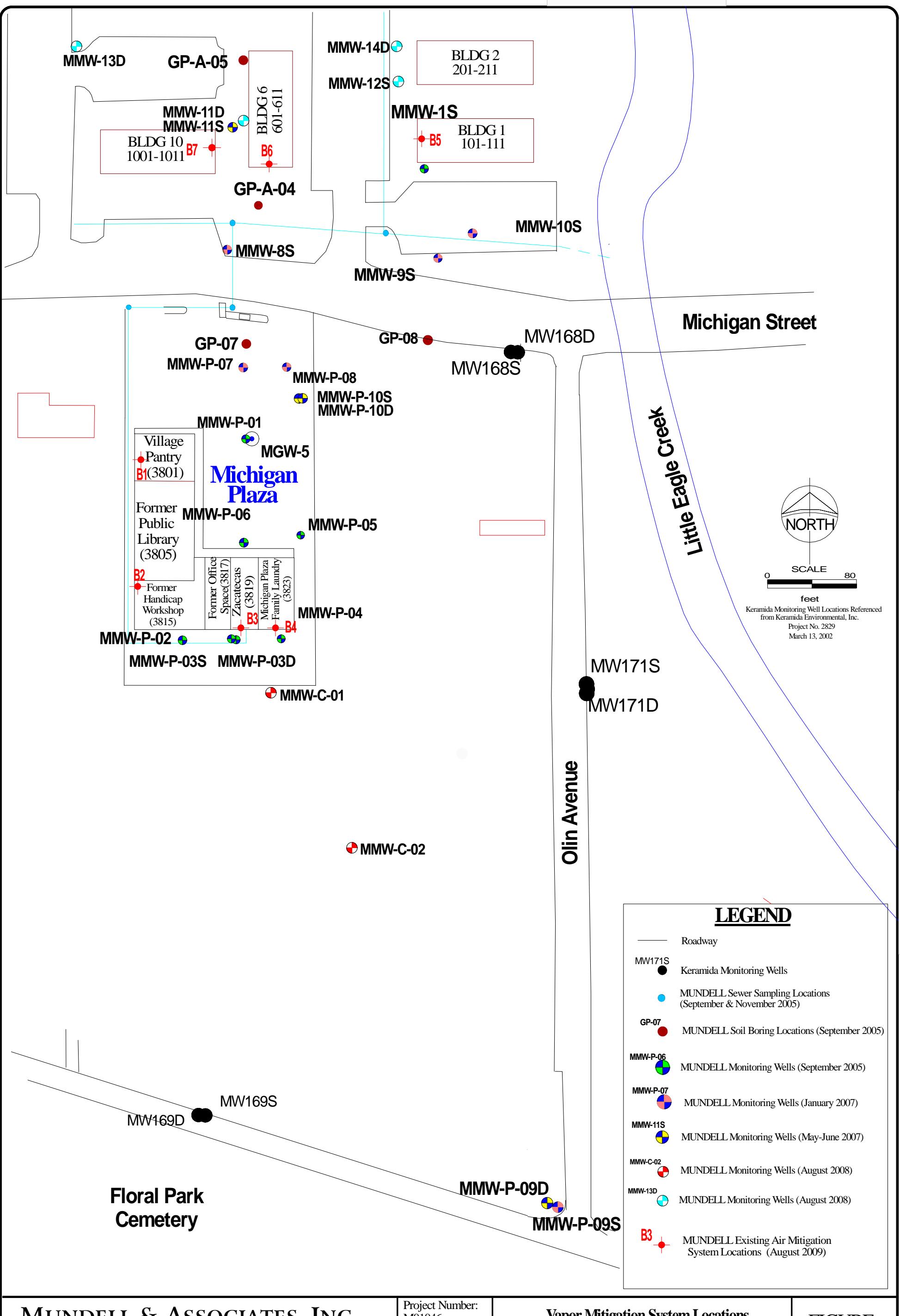
Michigan Plaza

3801-3823 West Michigan Street

Indianapolis, Indiana

FIGURE

5



MUNDELL & ASSOCIATES, INC.

Consulting Professionals for the Earth & Environment

110 South Downey Avenue
Indianapolis, Indiana 46219
317-630-9060, fax 317-630-9065

Project Number: M01046
Drawing File:
Date Prepared: 6/2/2009
Scale: 1"=80'

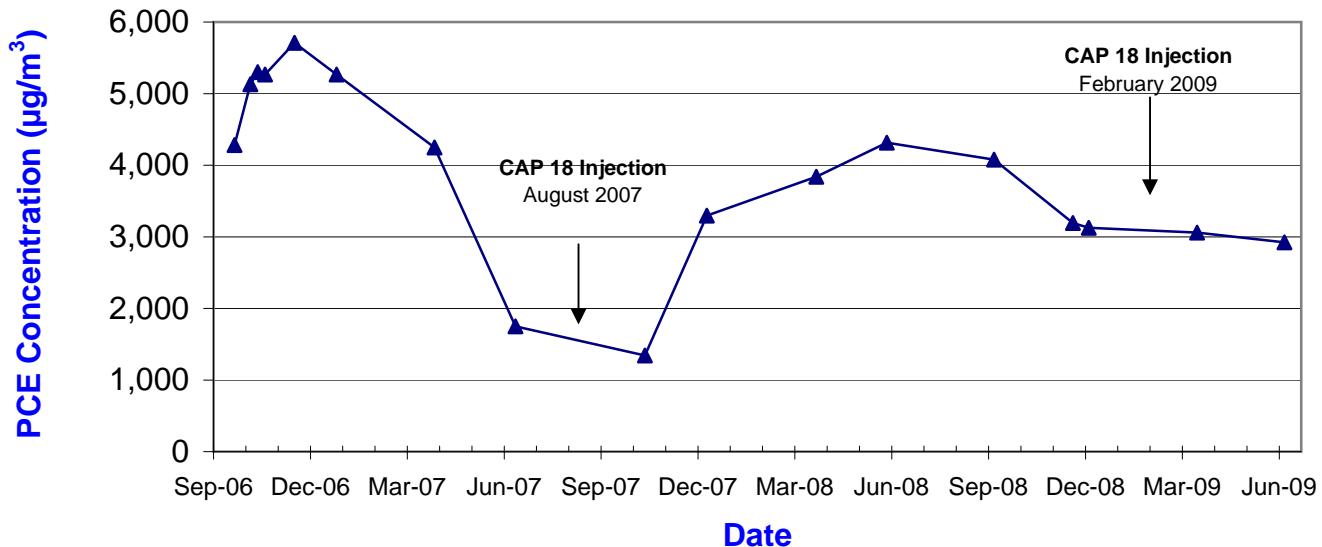
Vapor Mitigation System Locations

Second Quarter 2009
Michigan Plaza
3801-3823 West Michigan Street
Indianapolis, Indiana

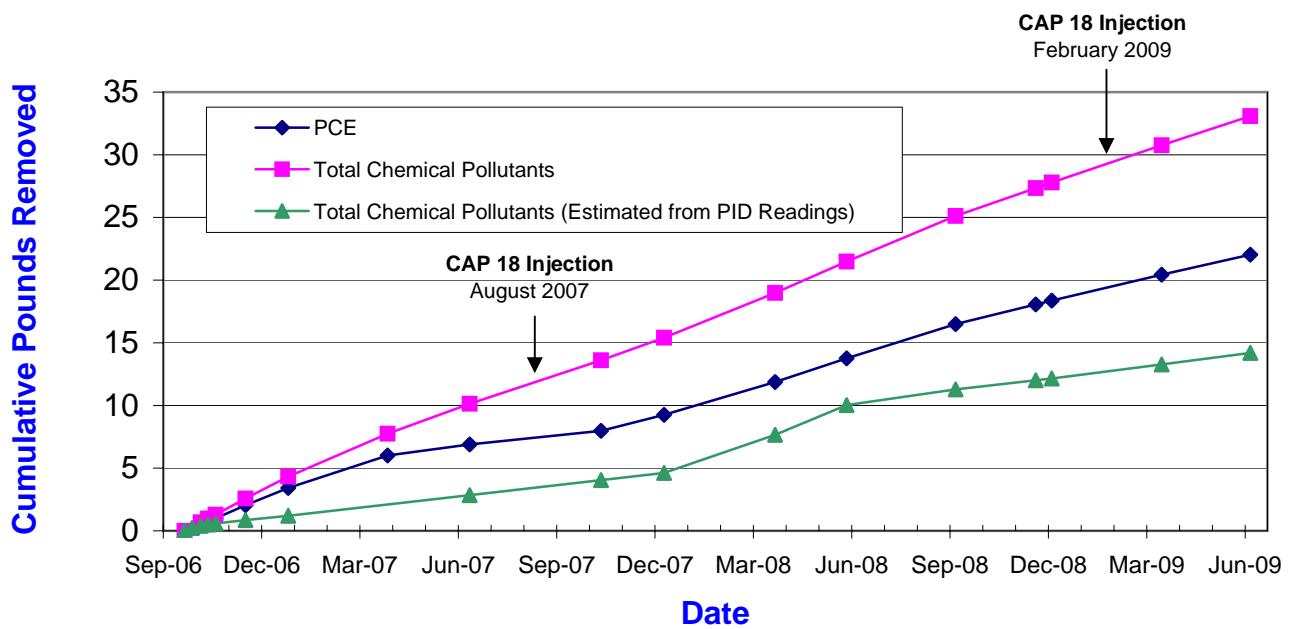
FIGURE

6

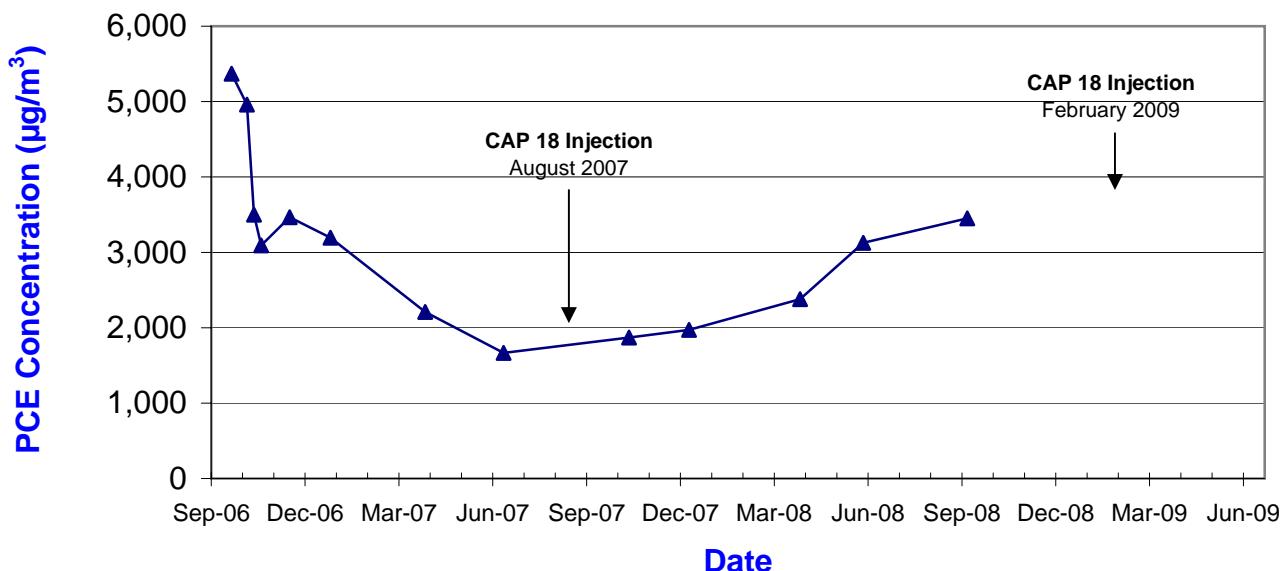
**PCE Vapor Concentrations Trend -
Village Pantry Vapor Mitigation System (B1)**



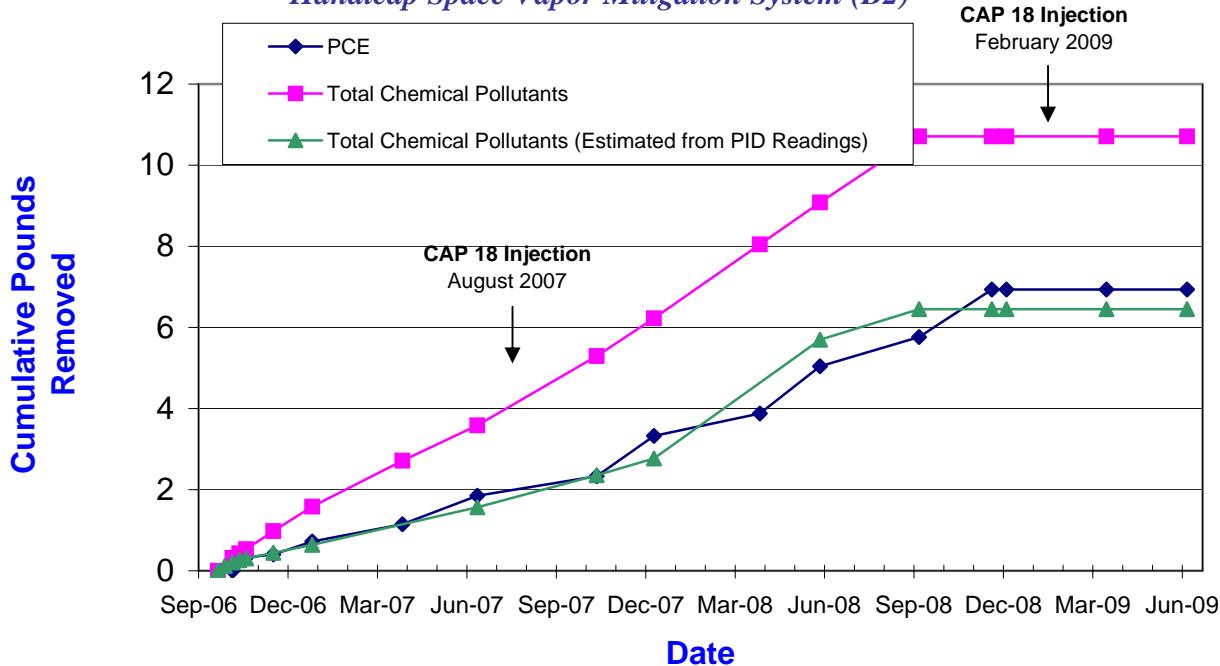
**Chemical Pounds Removed -
Village Pantry Vapor Mitigation System (B1)**



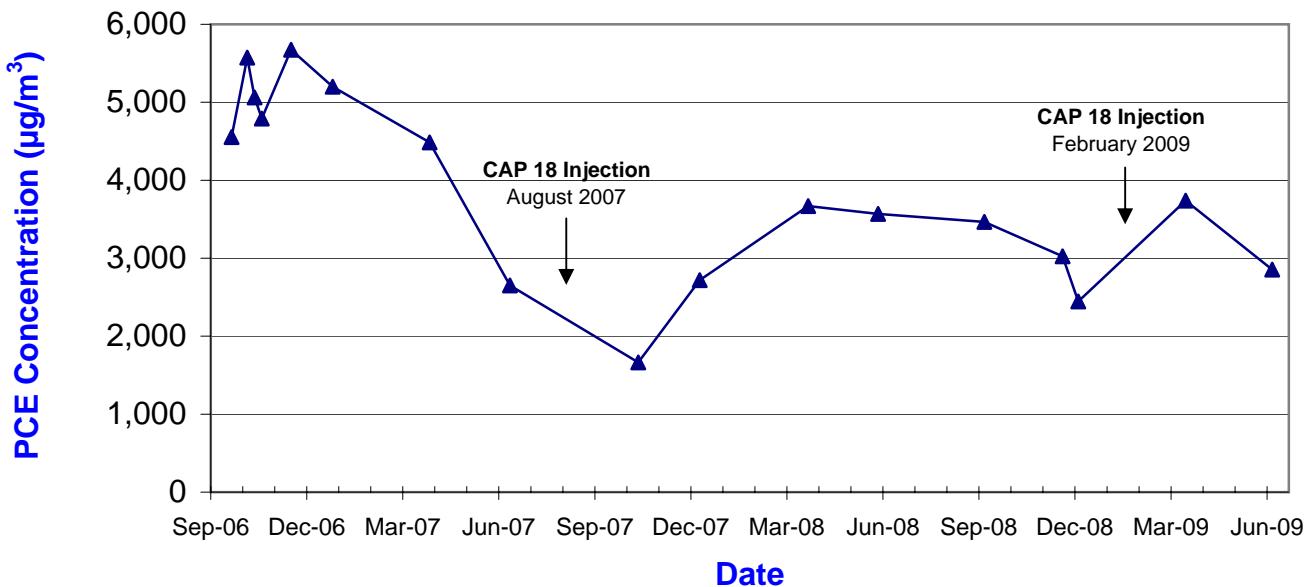
**PCE Vapor Concentrations Trend -
Handicap Space Vapor Mitigation System (B2)**



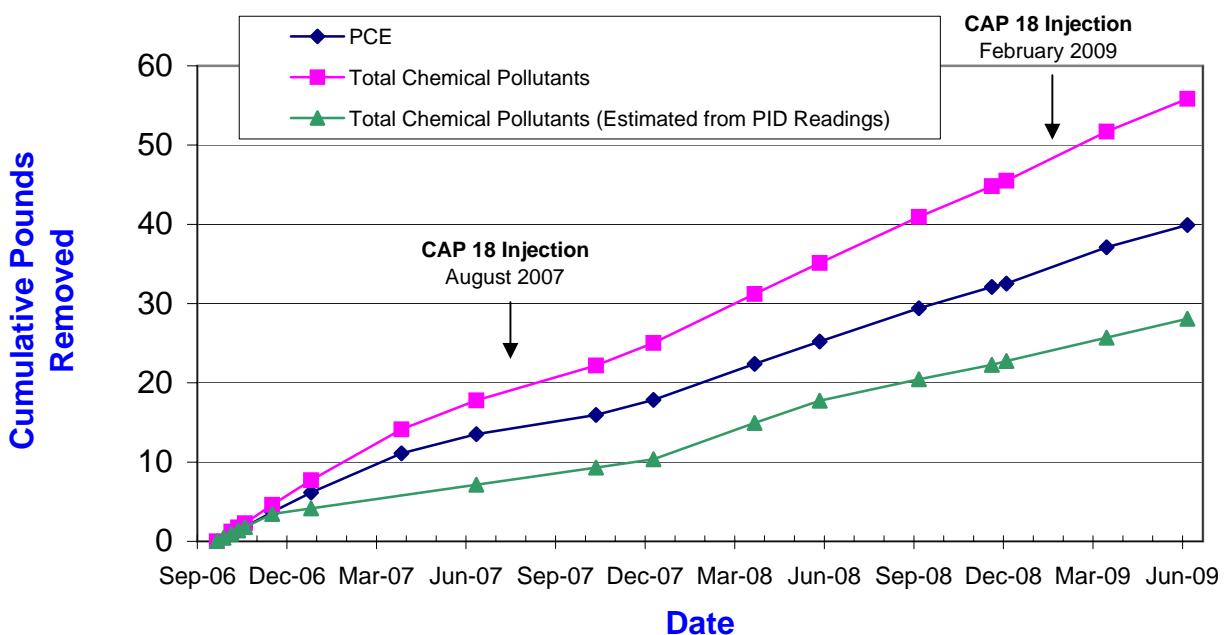
**Chemical Pounds Removed -
Handicap Space Vapor Mitigation System (B2)**



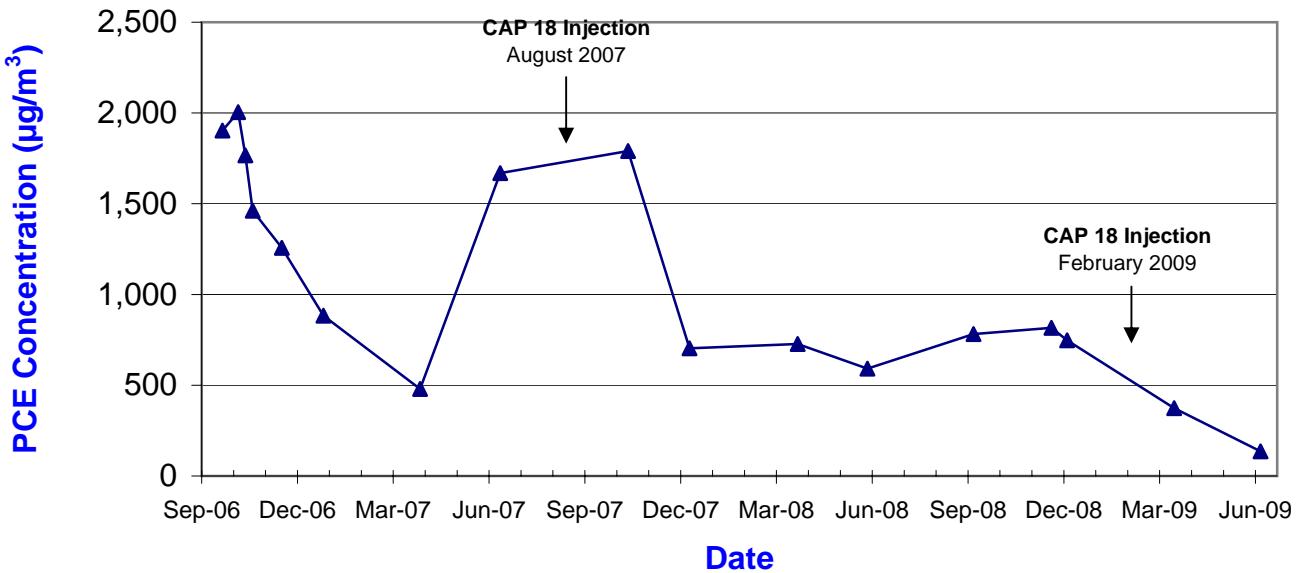
**PCE Vapor Concentrations Trend -
Mexican Store Vapor Mitigation System (B3)**



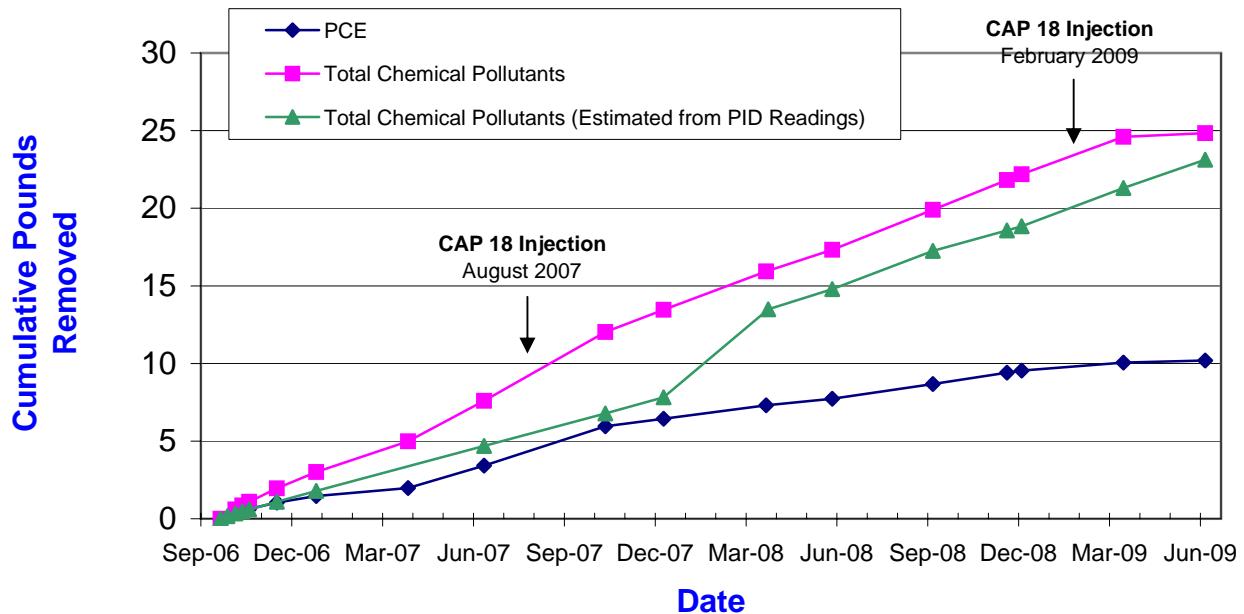
**Chemical Pounds Removed -
Mexican Store Vapor Mitigation System (B3)**



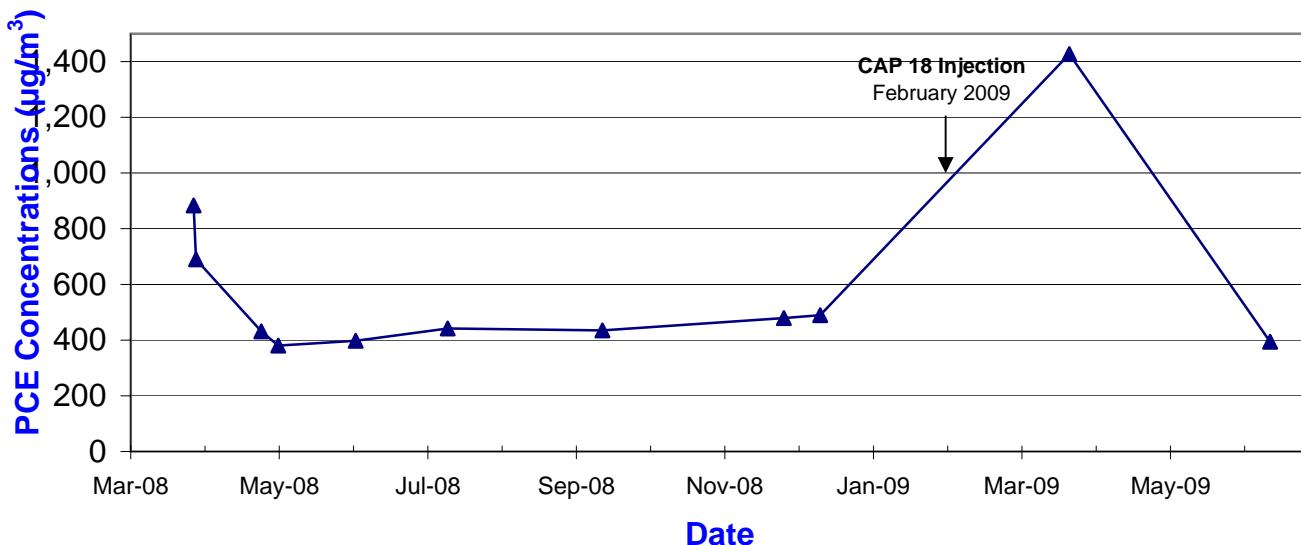
**PCE Vapor Concentrations Trend -
Laundromat Vapor Mitigation System (B4)**



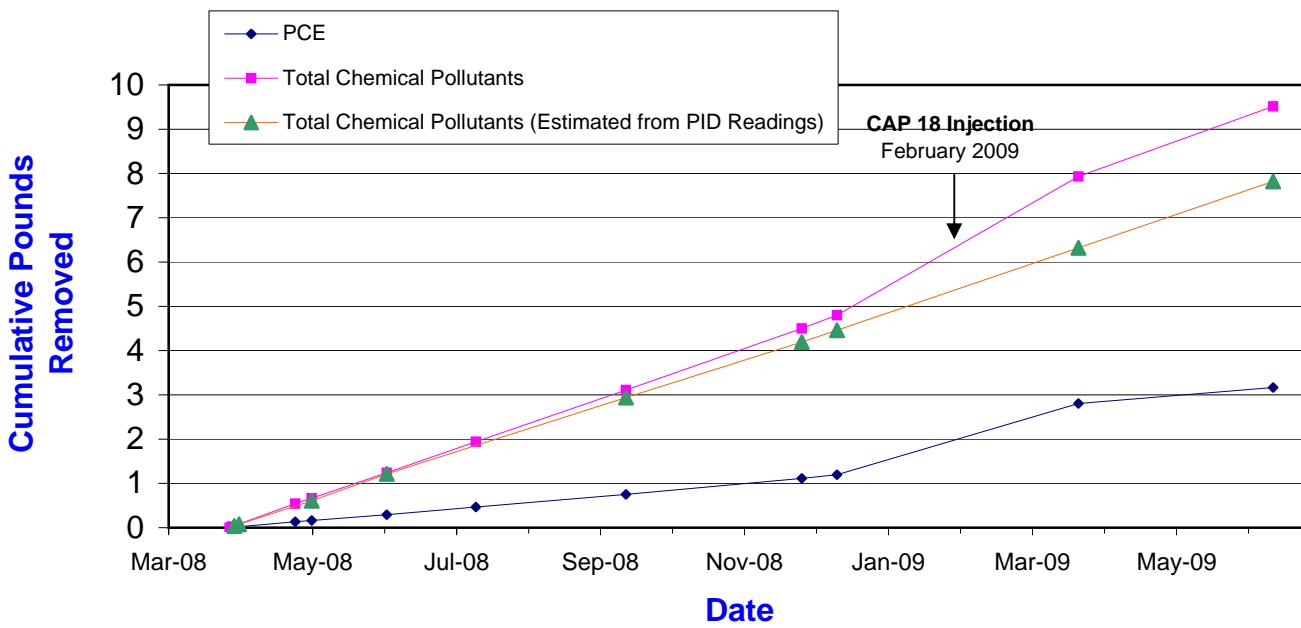
**Chemical Pounds Removed -
Laundromat Vapor Mitigation System (B4)**



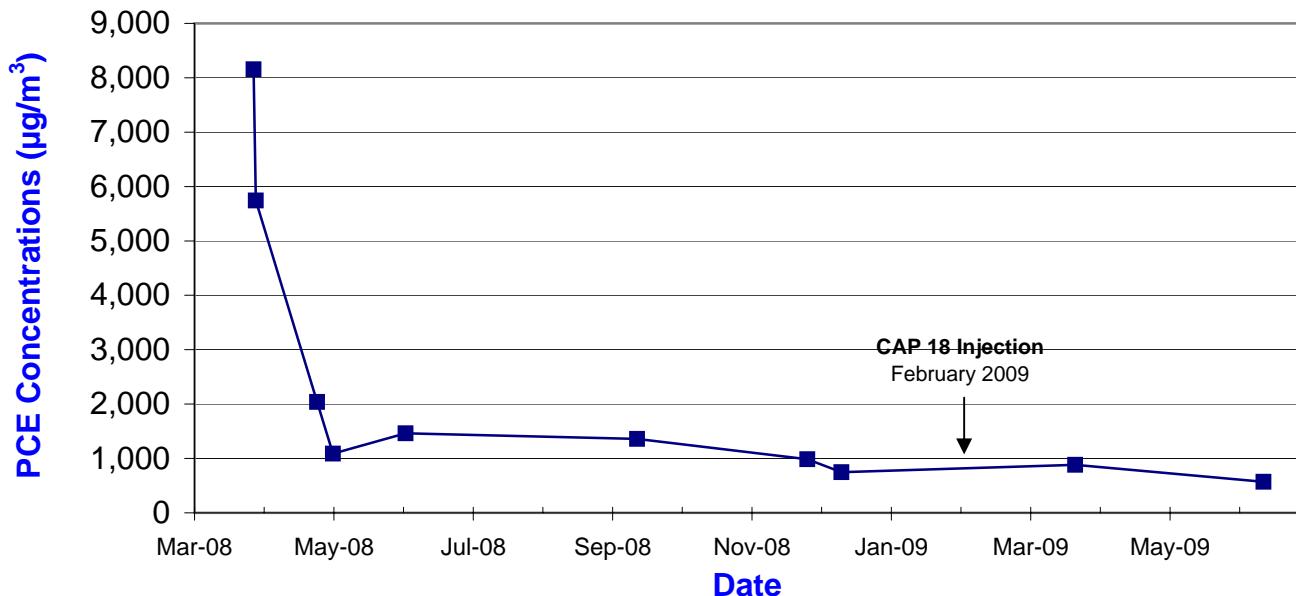
**PCE Vapor Concentrations Trend -
Apartment Building 1 Vapor Mitigation System (B5)**



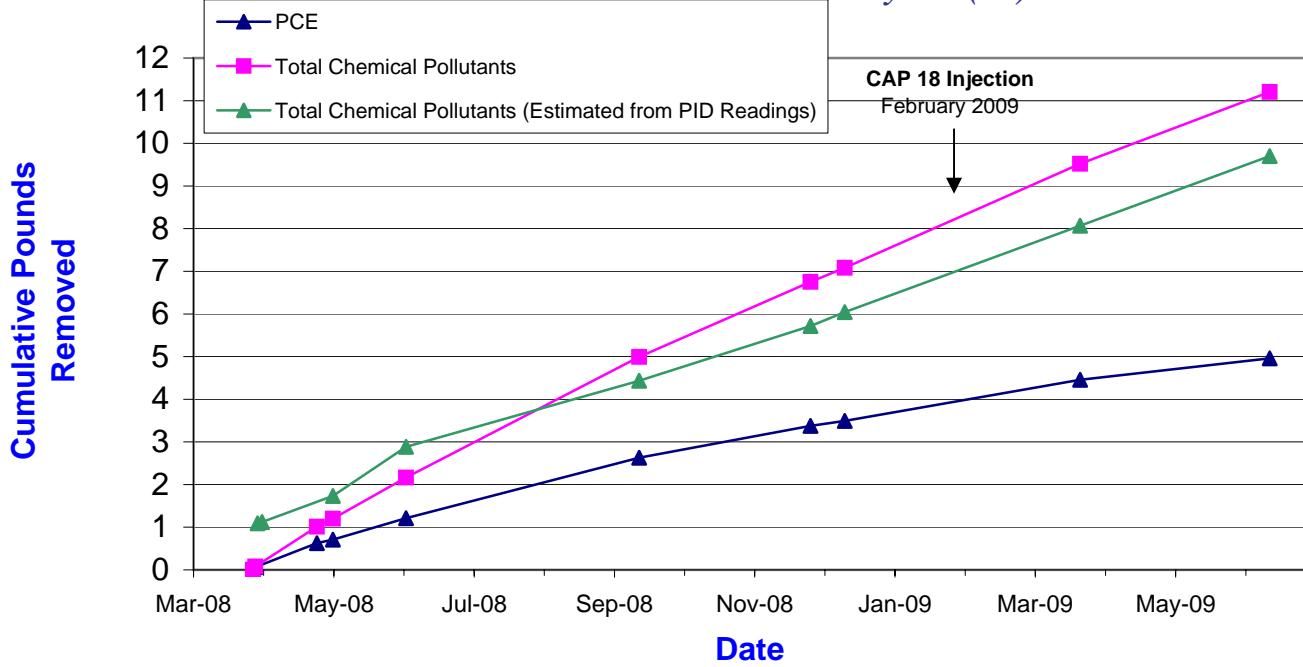
**Chemical Pounds Removed -
Apartment Building 1 Vapor Mitigation System (B5)**



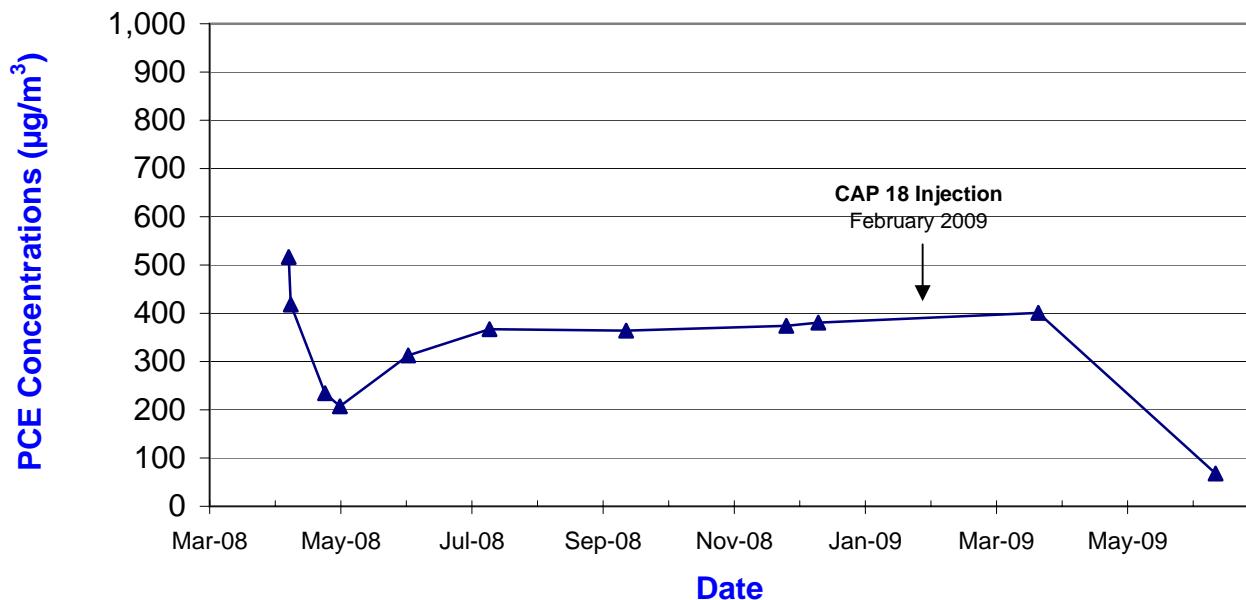
**PCE Vapor Concentrations Trend -
Apartment Building 6 Vapor Mitigation System (B6)**



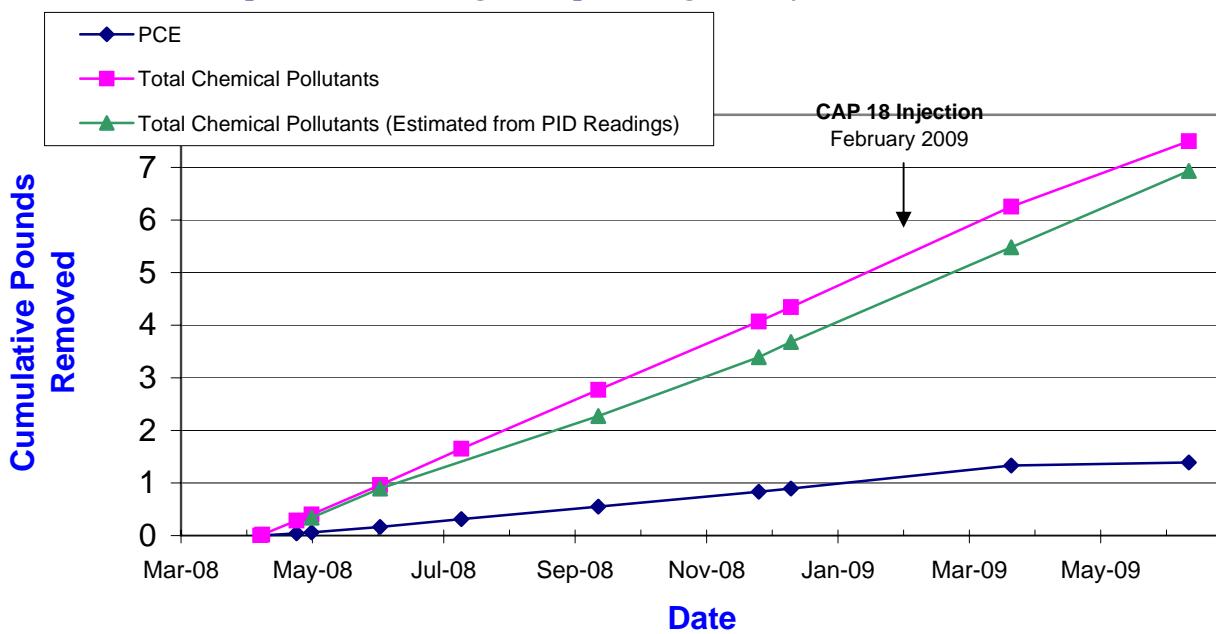
**Chemical Pounds Removed -
Apartment Building 6 Vapor Mitigation System (B6)**



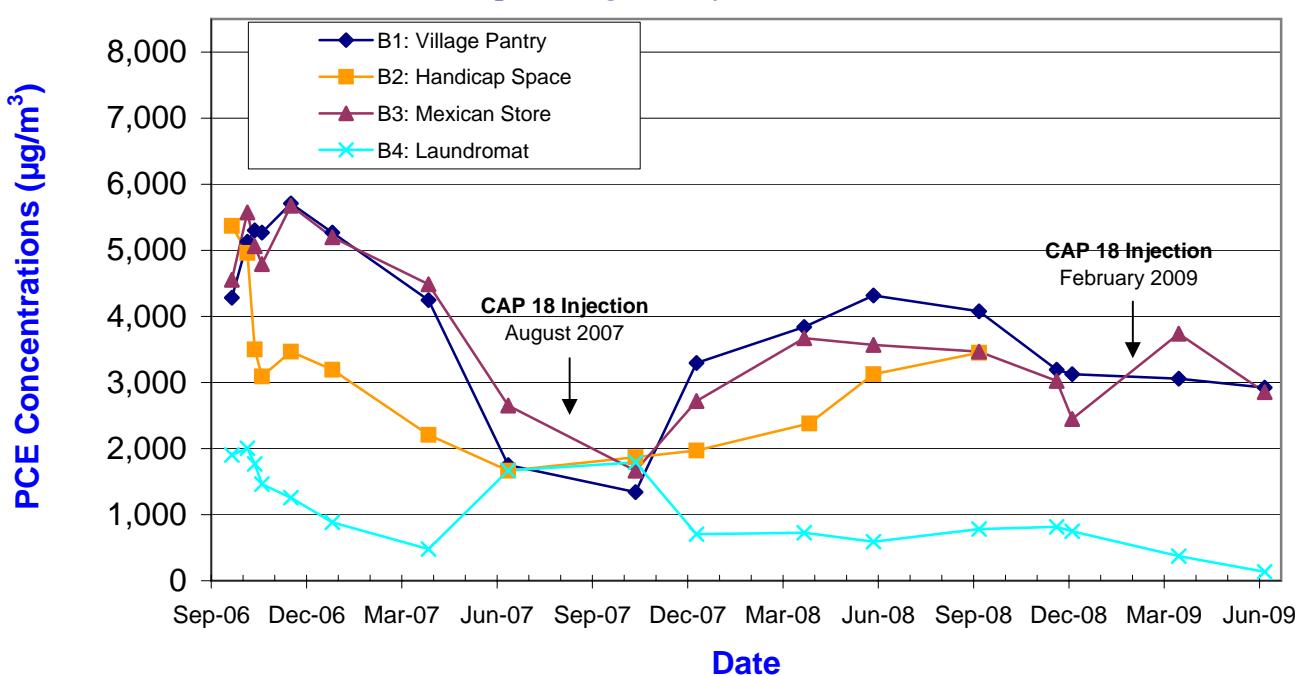
*PCE Vapor Concentrations Trend -
Apartment Building 10 Vapor Mitigation System (B7)*



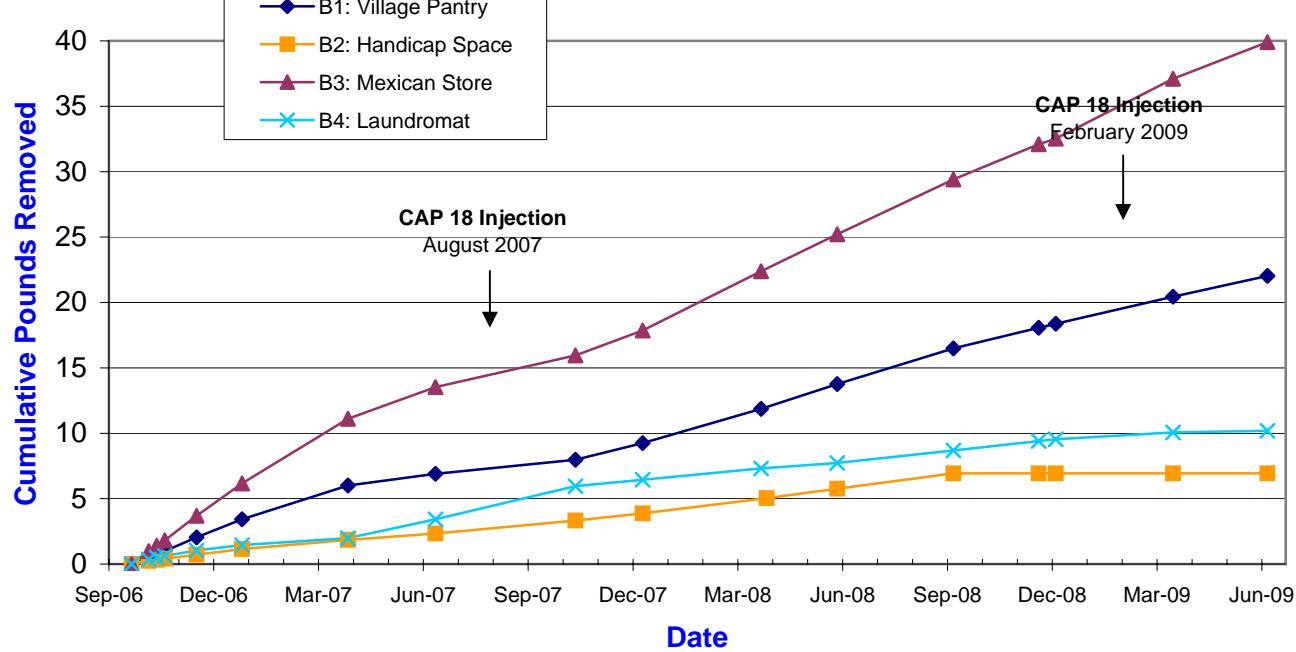
*Chemical Pounds Removed -
Apartment Building 10 Vapor Mitigation System (B7)*



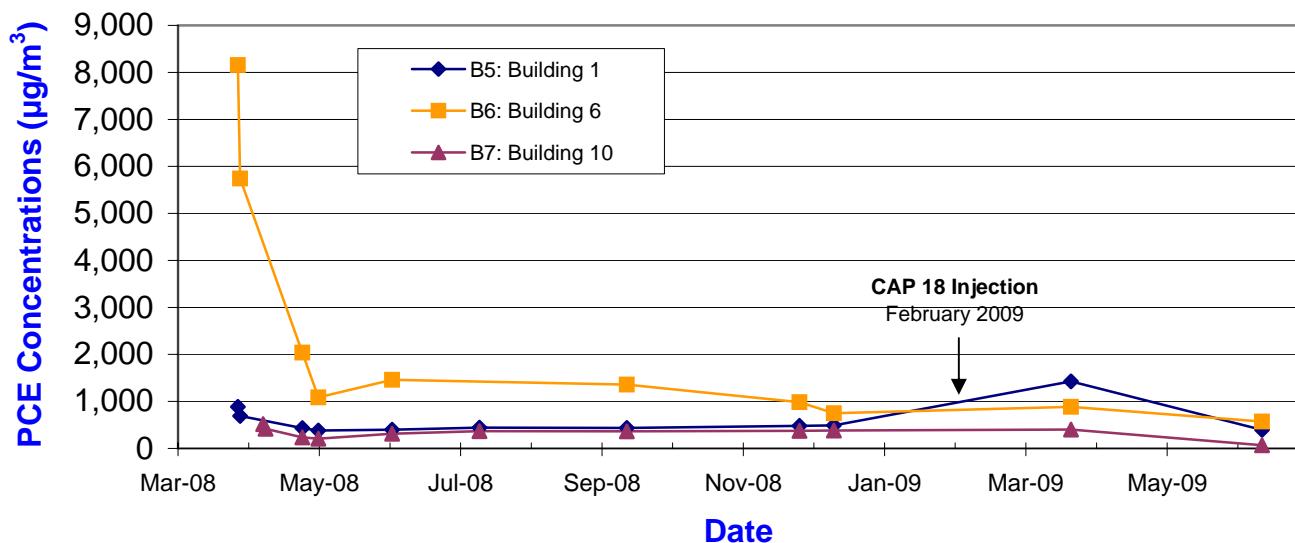
**PCE Concentrations Trend -
Plaza Vapor Mitigation Systems (B1-B4)**



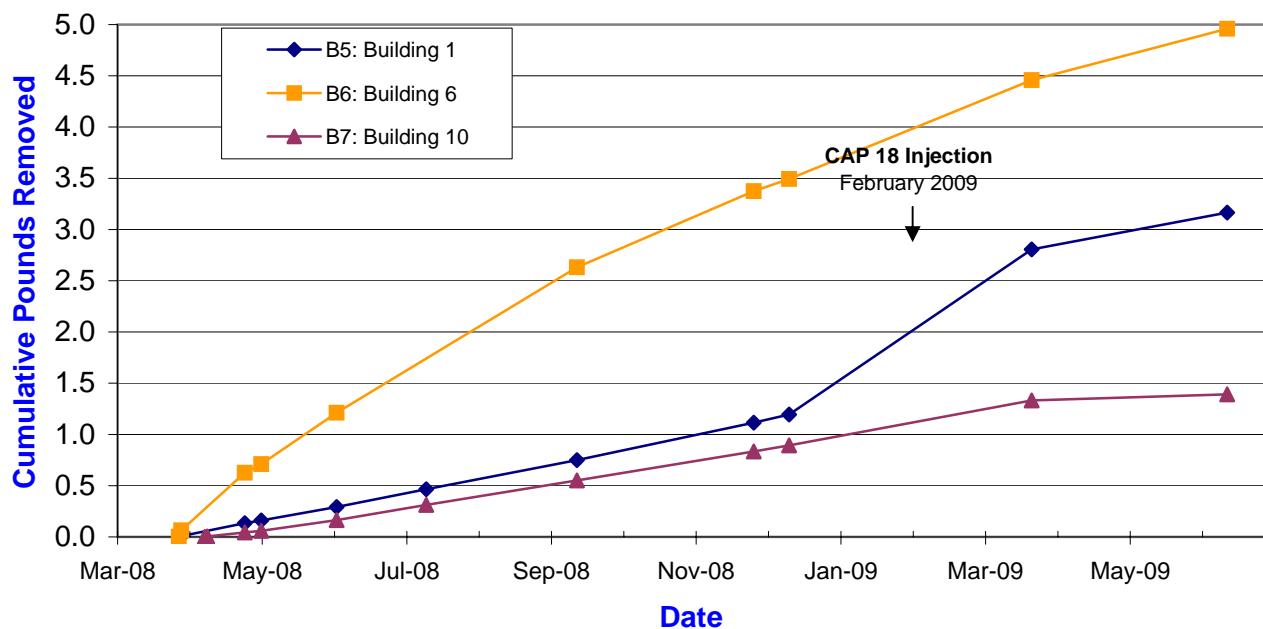
**PCE Pounds Removed -
Plaza Vapor Mitigation Systems (B1-B4)**



**PCE Concentrations Trend -
Apartment Vapor Mitigation Systems (B5-B7)**



**PCE Pounds Removed -
Apartment Vapor Mitigation Systems (B5-B7)**



APPENDIX A

LAB ANALYTICAL RESULTS

Air Results – June 2009

Groundwater Results – June 2009

July 01, 2009

Leena Lothe
Mundell & Associates, Inc.
110 South Downey Avenue
Indianapolis, IN 46219

RE: Project: M01046 / Michigan Plaza
Pace Project No.: 5027297

Dear Leena Lothe:

Enclosed are the analytical results for sample(s) received by the laboratory on June 17, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Mark Davis for
Phaedra Zucksworth
phaedra.zucksworth@pacelabs.com
Project Manager

Illinois/NELAC Certification #: 100418
Indiana Certification #: C-49-06
Kansas Certification #: E-10247
Kentucky Certification #: 0042
Ohio VAP: CL0065
Pennsylvania: 68-00791
West Virginia Certification #: 330

Enclosures

REPORT OF LABORATORY ANALYSIS

Page 1 of 11

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SAMPLE SUMMARY

Project: M01046 / Michigan Plaza
 Pace Project No.: 5027297

Lab ID	Sample ID	Matrix	Date Collected	Date Received
5027297001	MMW-P-09S	Water	06/16/09 17:05	06/17/09 10:03
5027297002	MMW-1S	Water	06/16/09 11:30	06/17/09 10:03
5027297003	MMW-9S	Water	06/16/09 12:25	06/17/09 10:03
5027297004	MMW-11S	Water	06/16/09 12:45	06/17/09 10:03
5027297005	DUP	Water	06/16/09 08:00	06/17/09 10:03

REPORT OF LABORATORY ANALYSIS

Page 2 of 11

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SAMPLE ANALYTE COUNT

Project: M01046 / Michigan Plaza
Pace Project No.: 5027297

Lab ID	Sample ID	Method	Analysts	Analytes Reported
5027297001	MMW-P-09S	ASTM D516-90,02	ILP	1
		EPA 353.2	CLS	1
5027297002	MMW-1S	ASTM D516-90,02	ILP	1
		EPA 353.2	CLS	1
5027297003	MMW-9S	ASTM D516-90,02	ILP	1
		EPA 353.2	CLS	1
		SM 2340B	FRW	1
5027297004	MMW-11S	ASTM D516-90,02	ILP	1
		EPA 353.2	CLS	1
5027297005	DUP	ASTM D516-90,02	ILP	1
		EPA 353.2	CLS	1

REPORT OF LABORATORY ANALYSIS

Page 3 of 11

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ANALYTICAL RESULTS

Project: M01046 / Michigan Plaza

Pace Project No.: 5027297

Sample: MMW-P-09S	Lab ID: 5027297001	Collected: 06/16/09 17:05	Received: 06/17/09 10:03	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
353.2 Nitrogen, NO₂/NO₃ unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	1.1	mg/L	0.10	1		06/17/09 11:17		
ASTM D516-9002 Sulfate Water	Analytical Method: ASTM D516-90,02							
Sulfate	64.0	mg/L	25.0	5		06/20/09 10:13	14808-79-8	

Date: 07/01/2009 04:24 PM

REPORT OF LABORATORY ANALYSIS

Page 4 of 11

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ANALYTICAL RESULTS

Project: M01046 / Michigan Plaza

Pace Project No.: 5027297

Sample: MMW-1S	Lab ID: 5027297002	Collected: 06/16/09 11:30	Received: 06/17/09 10:03	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
353.2 Nitrogen, NO₂/NO₃ unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	9.3	mg/L	0.10	1		06/17/09 11:10		
ASTM D516-9002 Sulfate Water	Analytical Method: ASTM D516-90,02							
Sulfate	42.8	mg/L	25.0	5		06/20/09 10:13	14808-79-8	

Date: 07/01/2009 04:24 PM

REPORT OF LABORATORY ANALYSIS

Page 5 of 11

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ANALYTICAL RESULTS

Project: M01046 / Michigan Plaza

Pace Project No.: 5027297

Sample: MMW-9S	Lab ID: 5027297003	Collected: 06/16/09 12:25	Received: 06/17/09 10:03	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2340B Hardness, Total (Calc.)	Analytical Method: SM 2340B							
Total Hardness	787	mg/L	1.0	1			06/30/09 02:35	
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	ND	mg/L	0.10	1			06/17/09 11:15	
ASTM D516-9002 Sulfate Water	Analytical Method: ASTM D516-90,02							
Sulfate	237	mg/L	125	25			06/20/09 10:13	14808-79-8

Date: 07/01/2009 04:24 PM

REPORT OF LABORATORY ANALYSIS

Page 6 of 11

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ANALYTICAL RESULTS

Project: M01046 / Michigan Plaza

Pace Project No.: 5027297

Sample: MMW-11S	Lab ID: 5027297004	Collected: 06/16/09 12:45	Received: 06/17/09 10:03	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
353.2 Nitrogen, NO₂/NO₃ unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	ND	mg/L	0.10	1		06/17/09 11:16		
ASTM D516-9002 Sulfate Water	Analytical Method: ASTM D516-90,02							
Sulfate	2020	mg/L	250	50		06/20/09 10:13	14808-79-8	

Date: 07/01/2009 04:24 PM

REPORT OF LABORATORY ANALYSIS

Page 7 of 11

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ANALYTICAL RESULTS

Project: M01046 / Michigan Plaza

Pace Project No.: 5027297

Sample: DUP	Lab ID: 5027297005	Collected: 06/16/09 08:00	Received: 06/17/09 10:03	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
353.2 Nitrogen, NO₂/NO₃ unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	9.4	mg/L	0.10	1		06/17/09 11:09		
ASTM D516-9002 Sulfate Water	Analytical Method: ASTM D516-90,02							
Sulfate	35.4	mg/L	25.0	5		06/20/09 10:13	14808-79-8	

Date: 07/01/2009 04:24 PM

REPORT OF LABORATORY ANALYSIS

Page 8 of 11

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QUALITY CONTROL DATA

Project: M01046 / Michigan Plaza

Pace Project No.: 5027297

QC Batch: WETA/3797 Analysis Method: EPA 353.2

QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, Unpres.

Associated Lab Samples: 5027297001, 5027297002, 5027297003, 5027297004, 5027297005

METHOD BLANK: 311176 Matrix: Water

Associated Lab Samples: 5027297001, 5027297002, 5027297003, 5027297004, 5027297005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	06/17/09 11:07	

LABORATORY CONTROL SAMPLE: 311177

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	0.94	94	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 311178 311179

Parameter	Units	5027308003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Max RPD	Qual
Nitrogen, Nitrate	mg/L	ND	1	1	1.0	1.0	93	96	90-110	3	20	

Date: 07/01/2009 04:24 PM

REPORT OF LABORATORY ANALYSIS

Page 9 of 11

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QUALITY CONTROL DATA

Project: M01046 / Michigan Plaza

Pace Project No.: 5027297

QC Batch: WETA/3811 Analysis Method: ASTM D516-90,02

QC Batch Method: ASTM D516-90,02 Analysis Description: ASTM D516-9002 Sulfate Water

Associated Lab Samples: 5027297001, 5027297002, 5027297003, 5027297004, 5027297005

METHOD BLANK: 312924 Matrix: Water

Associated Lab Samples: 5027297001, 5027297002, 5027297003, 5027297004, 5027297005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	5.0	06/20/09 10:13	

LABORATORY CONTROL SAMPLE: 312925

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	20	19.7	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 312926 312927

Parameter	Units	5027308003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Max RPD	Qual
Sulfate	mg/L	104	100	100	185	211	81	107	75-125	13	20	

Date: 07/01/2009 04:24 PM

REPORT OF LABORATORY ANALYSIS

Page 10 of 11

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QUALIFIERS

Project: M01046 / Michigan Plaza

Pace Project No.: 5027297

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

July 02, 2009

Leena Lothe
Mundell & Associates, Inc.
110 South Downey Avenue
Indianapolis, IN 46219

RE: Project: M01046 / Michigan Plaza
Pace Project No.: 5027382

Dear Leena Lothe:

Enclosed are the analytical results for sample(s) received by the laboratory on June 18, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Mark Davis for
Phaedra Zucksworth
phaedra.zucksworth@pacelabs.com
Project Manager

Illinois/NELAC Certification #: 100418
Indiana Certification #: C-49-06
Kansas Certification #: E-10247
Kentucky Certification #: 0042
Ohio VAP: CL0065
Pennsylvania: 68-00791
West Virginia Certification #: 330

Enclosures

REPORT OF LABORATORY ANALYSIS

Page 1 of 12

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SAMPLE SUMMARY

Project: M01046 / Michigan Plaza
 Pace Project No.: 5027382

Lab ID	Sample ID	Matrix	Date Collected	Date Received
5027382001	MMW-P-03S	Water	06/17/09 10:40	06/18/09 13:13
5027382002	MMW-P-03D	Water	06/17/09 11:05	06/18/09 13:13
5027382003	MMW-P-06	Water	06/17/09 11:40	06/18/09 13:13
5027382004	MMW-P-08	Water	06/17/09 13:05	06/18/09 13:13
5027382005	MMW-P-10S	Water	06/17/09 13:50	06/18/09 13:13
5027382006	DUP	Water	06/17/09 13:50	06/18/09 13:13

REPORT OF LABORATORY ANALYSIS

Page 2 of 12

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SAMPLE ANALYTE COUNT

Project: M01046 / Michigan Plaza
Pace Project No.: 5027382

Lab ID	Sample ID	Method	Analysts	Analytes Reported
5027382001	MMW-P-03S	ASTM D516-90,02	ILP	1
		EPA 353.2	CLS	1
		SM 2340B	FRW	1
5027382002	MMW-P-03D	ASTM D516-90,02	ILP	1
		EPA 353.2	CLS	1
5027382003	MMW-P-06	ASTM D516-90,02	ILP	1
		EPA 353.2	CLS	1
5027382004	MMW-P-08	ASTM D516-90,02	ILP	1
		EPA 353.2	CLS	1
		SM 2340B	FRW	1
5027382005	MMW-P-10S	ASTM D516-90,02	ILP	1
		EPA 353.2	CLS	1
5027382006	DUP	SM 2340B	FRW	1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: M01046 / Michigan Plaza

Pace Project No.: 5027382

Sample: MMW-P-03S	Lab ID: 5027382001	Collected: 06/17/09 10:40	Received: 06/18/09 13:13	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2340B Hardness, Total (Calc.)	Analytical Method: SM 2340B							
Total Hardness	613	mg/L	1.0	1		06/30/09 02:41		
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	ND	mg/L	0.10	1		06/18/09 19:00		
ASTM D516-9002 Sulfate Water	Analytical Method: ASTM D516-90,02							
Sulfate	ND	mg/L	5.0	1		06/26/09 15:59	14808-79-8	

Date: 07/02/2009 10:55 AM

REPORT OF LABORATORY ANALYSIS

Page 4 of 12

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ANALYTICAL RESULTS

Project: M01046 / Michigan Plaza

Pace Project No.: 5027382

Sample: MMW-P-03D	Lab ID: 5027382002	Collected: 06/17/09 11:05	Received: 06/18/09 13:13	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
353.2 Nitrogen, NO₂/NO₃ unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	ND	mg/L	0.10	1		06/18/09 19:03		
ASTM D516-9002 Sulfate Water	Analytical Method: ASTM D516-90,02							
Sulfate	6.8	mg/L	5.0	1		06/26/09 15:59	14808-79-8	

Date: 07/02/2009 10:55 AM

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: M01046 / Michigan Plaza

Pace Project No.: 5027382

Sample: MMW-P-06	Lab ID: 5027382003	Collected: 06/17/09 11:40	Received: 06/18/09 13:13	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
353.2 Nitrogen, NO₂/NO₃ unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	ND	mg/L	0.10	1		06/18/09 19:04		
ASTM D516-9002 Sulfate Water	Analytical Method: ASTM D516-90,02							
Sulfate	61.7	mg/L	25.0	5		06/26/09 15:59	14808-79-8	

Date: 07/02/2009 10:55 AM

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: M01046 / Michigan Plaza

Pace Project No.: 5027382

Sample: MMW-P-08	Lab ID: 5027382004	Collected: 06/17/09 13:05	Received: 06/18/09 13:13	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2340B Hardness, Total (Calc.)	Analytical Method: SM 2340B							
Total Hardness	733	mg/L	1.0	1		06/30/09 02:46		
353.2 Nitrogen, NO2/NO3 unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	ND	mg/L	0.10	1		06/18/09 19:05		
ASTM D516-9002 Sulfate Water	Analytical Method: ASTM D516-90,02							
Sulfate	5.0	mg/L	5.0	1		06/26/09 15:59	14808-79-8	

Date: 07/02/2009 10:55 AM

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: M01046 / Michigan Plaza

Pace Project No.: 5027382

Sample: MMW-P-10S	Lab ID: 5027382005	Collected: 06/17/09 13:50	Received: 06/18/09 13:13	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
353.2 Nitrogen, NO₂/NO₃ unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	ND	mg/L	0.10	1		06/18/09 19:06		
ASTM D516-9002 Sulfate Water	Analytical Method: ASTM D516-90,02							
Sulfate	9.4	mg/L	5.0	1		06/26/09 15:59	14808-79-8	

Date: 07/02/2009 10:55 AM

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: M01046 / Michigan Plaza

Pace Project No.: 5027382

Sample: DUP	Lab ID: 5027382006	Collected: 06/17/09 13:50	Received: 06/18/09 13:13	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2340B Hardness, Total (Calc.)	Analytical Method: SM 2340B							
Total Hardness	729	mg/L		1.0	1		06/30/09 02:52	

Date: 07/02/2009 10:55 AM

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: M01046 / Michigan Plaza
Pace Project No.: 5027382

QC Batch: WETA/3805 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, Unpres.
Associated Lab Samples: 5027382001, 5027382002, 5027382003, 5027382004, 5027382005

METHOD BLANK: 312256 Matrix: Water

Associated Lab Samples: 5027382001, 5027382002, 5027382003, 5027382004, 5027382005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	06/18/09 18:58	

LABORATORY CONTROL SAMPLE: 312257

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	0.91	91	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 312258 312259

Parameter	MS		MSD		% Rec	MSD % Rec	MS % Rec	% Rec Limits	Max RPD		Qual
	5027382001	Spike Conc.	Spike Conc.	MS Result	MSD Result				RPD	RPD	
Nitrogen, Nitrate	mg/L	ND	1	1	0.89	0.86	85	81	90-110	4	20 M3

QUALITY CONTROL DATA

Project: M01046 / Michigan Plaza
Pace Project No.: 5027382

QC Batch: WETA/3838 Analysis Method: ASTM D516-90,02
QC Batch Method: ASTM D516-90,02 Analysis Description: ASTM D516-9002 Sulfate Water
Associated Lab Samples: 5027382001, 5027382002, 5027382003, 5027382004, 5027382005

METHOD BLANK: 315417 Matrix: Water

Associated Lab Samples: 5027382001, 5027382002, 5027382003, 5027382004, 5027382005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	5.0	06/26/09 15:59	

LABORATORY CONTROL SAMPLE: 315418

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	20	19.4	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 315419 315420

Parameter			MS		MSD						Max RPD	Qual
	Units	Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD		
Sulfate	mg/L	896	1000	1000	1830	1830	94	93	75-125	.2	20	

QUALIFIERS

Project: M01046 / Michigan Plaza
Pace Project No.: 5027382

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

ANALYTE QUALIFIERS

M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.

July 02, 2009

Leena Lothe
Mundell & Associates, Inc.
110 South Downey Avenue
Indianapolis, IN 46219

RE: Project: M01046 / Michigan Meadows
Pace Project No.: 5027434

Dear Leena Lothe:

Enclosed are the analytical results for sample(s) received by the laboratory on June 19, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Mark Davis for
Phaedra Zucksworth
phaedra.zucksworth@pacelabs.com
Project Manager

Illinois/NELAC Certification #: 100418
Indiana Certification #: C-49-06
Kansas Certification #: E-10247
Kentucky Certification #: 0042
Ohio VAP: CL0065
Pennsylvania: 68-00791
West Virginia Certification #: 330

Enclosures

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: M01046 / Michigan Meadows
Pace Project No.: 5027434

Lab ID	Sample ID	Matrix	Date Collected	Date Received
5027434001	MMW-168 D	Water	06/18/09 14:25	06/19/09 09:50

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: M01046 / Michigan Meadows
Pace Project No.: 5027434

Lab ID	Sample ID	Method	Analysts	Analytes Reported
5027434001	MMW-168 D	ASTM D516-90,02	ILP	1
		EPA 353.2	CLS	1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: M01046 / Michigan Meadows
 Pace Project No.: 5027434

Sample: MMW-168 D	Lab ID: 5027434001	Collected: 06/18/09 14:25	Received: 06/19/09 09:50	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
353.2 Nitrogen, NO₂/NO₃ unpres	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	ND	mg/L	0.10	1		06/19/09 13:28		
ASTM D516-9002 Sulfate Water	Analytical Method: ASTM D516-90,02							
Sulfate	50.5	mg/L	25.0	5		06/30/09 15:25	14808-79-8	

Date: 07/02/2009 10:54 AM

REPORT OF LABORATORY ANALYSIS

Page 4 of 7

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QUALITY CONTROL DATA

Project: M01046 / Michigan Meadows
Pace Project No.: 5027434

QC Batch:	WETA/3807	Analysis Method:	EPA 353.2
QC Batch Method:	EPA 353.2	Analysis Description:	353.2 Nitrate + Nitrite, Unpres.
Associated Lab Samples:	5027434001		

METHOD BLANK: 312514 Matrix: Water

Associated Lab Samples: 5027434001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, Nitrate	mg/L	ND	0.10	06/19/09 13:12	

LABORATORY CONTROL SAMPLE: 312515

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Nitrate	mg/L	1	0.91	91	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 313226 313227

Parameter	Units	5027436006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Max RPD	Max Qual
Nitrogen, Nitrate	mg/L	ND	1	1	0.89	0.90	89	90	90-110	.5	20	M0

QUALITY CONTROL DATA

Project: M01046 / Michigan Meadows
Pace Project No.: 5027434

QC Batch:	WETA/3849	Analysis Method:	ASTM D516-90,02
QC Batch Method:	ASTM D516-90,02	Analysis Description:	ASTM D516-9002 Sulfate Water
Associated Lab Samples:	5027434001		

METHOD BLANK: 316471 Matrix: Water

Associated Lab Samples: 5027434001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	mg/L	ND	5.0	06/30/09 15:25	

LABORATORY CONTROL SAMPLE: 316472

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	mg/L	20	18.9	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 316473 316474

Parameter	Units	5027597009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
Sulfate	mg/L	17.9	20	20	43.4	42.7	127	124	75-125	1	20	M1

QUALIFIERS

Project: M01046 / Michigan Meadows
Pace Project No.: 5027434

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

ANALYTE QUALIFIERS

M0 Matrix spike recovery was outside laboratory control limits.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

July 01, 2009

Leena Lothe
Mundell & Associates, Inc.
110 South Downey Avenue
Indianapolis, IN 46219

RE: Project: Michigan Plaza / M01046
Pace Project No.: 5027523

Dear Leena Lothe:

Enclosed are the analytical results for sample(s) received by the laboratory on June 22, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kelly Jones for
Andrew Votaw
andrew.votaw@pacelabs.com
Project Manager

Illinois/NELAC Certification #: 100418
Indiana Certification #: C-49-06
Kansas Certification #: E-10247
Kentucky Certification #: 0042
Ohio VAP: CL0065
Pennsylvania: 68-00791
West Virginia Certification #: 330

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REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Lab ID	Sample ID	Matrix	Date Collected	Date Received
5027523001	MMW-1S	Water	06/16/09 11:30	06/22/09 10:54
5027523002	MMW-2S	Water	06/16/09 09:45	06/22/09 10:54
5027523003	MMW-3S	Water	06/15/09 16:45	06/22/09 10:54
5027523004	MMW-4D	Water	06/15/09 16:00	06/22/09 10:54
5027523005	MMW-5D	Water	06/15/09 15:35	06/22/09 10:54
5027523006	MMW-6D	Water	06/15/09 14:40	06/22/09 10:54
5027523007	MMW-7S	Water	06/15/09 13:30	06/22/09 10:54
5027523008	MMW-8S	Water	06/16/09 13:20	06/22/09 10:54
5027523009	MMW-9S	Water	06/16/09 12:25	06/22/09 10:54
5027523010	MMW-10S	Water	06/16/09 12:00	06/22/09 10:54
5027523011	MMW-11S	Water	06/16/09 15:45	06/22/09 10:54
5027523012	MMW-11D	Water	06/16/09 15:28	06/22/09 10:54
5027523013	MMW-12S	Water	06/16/09 11:00	06/22/09 10:54
5027523014	MMW-13D LOW	Water	06/16/09 14:50	06/22/09 10:54
5027523015	MMW-13D MEDIUM (29')	Water	06/16/09 14:50	06/22/09 10:54
5027523016	MMW-13D HIGH (17')	Water	06/16/09 14:50	06/22/09 10:54
5027523017	MMW-14D	Water	06/16/09 10:20	06/22/09 10:54
5027523018	MMW-C-02	Water	06/18/09 15:40	06/22/09 10:54
5027523019	MMW-C-01	Water	06/18/09 15:15	06/22/09 10:54
5027523020	MMW-P-01	Water	06/17/09 12:25	06/22/09 10:54
5027523021	MMW-P-02	Water	06/17/09 10:20	06/22/09 10:54
5027523022	MMW-P-03S	Water	06/17/09 10:40	06/22/09 10:54
5027523023	MMW-P-03D	Water	06/17/09 11:05	06/22/09 10:54
5027523024	MMW-P-04	Water	06/17/09 10:45	06/22/09 10:54
5027523025	MMW-P-05	Water	06/17/09 12:00	06/22/09 10:54
5027523026	MMW-P-06	Water	06/17/09 11:40	06/22/09 10:54
5027523027	MMW-P-07	Water	06/17/09 12:45	06/22/09 10:54
5027523028	MMW-P-08	Water	06/17/09 13:05	06/22/09 10:54
5027523029	MMW-P-09S	Water	06/16/09 17:05	06/22/09 10:54
5027523030	MMW-P-09D	Water	06/16/09 17:32	06/22/09 10:54
5027523031	MMW-P-10S	Water	06/17/09 13:50	06/22/09 10:54
5027523032	MMW-P-10D	Water	06/17/09 13:30	06/22/09 10:54
5027523033	MMW-167S	Water	06/17/09 09:30	06/22/09 10:54
5027523034	MMW-167D	Water	06/17/09 09:55	06/22/09 10:54
5027523035	MMW-168D	Water	06/18/09 14:25	06/22/09 10:54
5027523036	MMW-170S	Water	06/17/09 09:05	06/22/09 10:54
5027523037	MMW-170D (MS/MSD)	Water	06/17/09 08:40	06/22/09 10:54

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Lab ID	Sample ID	Matrix	Date Collected	Date Received
5027523038	MMW-171D	Water	06/16/09 16:40	06/22/09 10:54
5027523039	DUP 1	Water	06/16/09 08:00	06/22/09 10:54
5027523040	DUP 2	Water	06/16/09 08:00	06/22/09 10:54
5027523041	Equipment Blank	Water	06/18/09 16:50	06/22/09 10:54

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Michigan Plaza / M01046
Pace Project No.: 5027523

Lab ID	Sample ID	Method	Analysts	Analytes Reported
5027523001	MMW-1S	EPA 8260	ALA	18
5027523002	MMW-2S	EPA 8260	ALA	18
5027523003	MMW-3S	EPA 8260	ALA	18
5027523004	MMW-4D	EPA 8260	ALA	18
5027523005	MMW-5D	EPA 8260	ALA	18
5027523006	MMW-6D	EPA 8260	ALA	18
5027523007	MMW-7S	EPA 8260	ALA	18
5027523008	MMW-8S	EPA 8260	ALA	18
5027523009	MMW-9S	EPA 8260	ALA	18
5027523010	MMW-10S	EPA 8260	ALA	18
5027523011	MMW-11S	EPA 8260	ALA	18
5027523012	MMW-11D	EPA 8260	ALA	18
5027523013	MMW-12S	EPA 8260	ALA	18
5027523014	MMW-13D LOW	EPA 8260	ALA	18
5027523015	MMW-13D MEDIUM (29')	EPA 8260	ALA	18
5027523016	MMW-13D HIGH (17')	EPA 8260	ALA	18
5027523017	MMW-14D	EPA 8260	ALA	18
5027523018	MMW-C-02	EPA 8260	ALA	18
5027523019	MMW-C-01	EPA 8260	ALA	18
5027523020	MMW-P-01	EPA 8260	ALA	18
5027523021	MMW-P-02	EPA 8260	ALA	18
5027523022	MMW-P-03S	EPA 8260	ALA	18
5027523023	MMW-P-03D	EPA 8260	ALA	18
5027523024	MMW-P-04	EPA 8260	ALA	18
5027523025	MMW-P-05	EPA 8260	ALA	18
5027523026	MMW-P-06	EPA 8260	ALA	18
5027523027	MMW-P-07	EPA 8260	ALA	18
5027523028	MMW-P-08	EPA 8260	ALA	18
5027523029	MMW-P-09S	EPA 8260	ALA	18
5027523030	MMW-P-09D	EPA 8260	ALA	18
5027523031	MMW-P-10S	EPA 8260	ALA	18
5027523032	MMW-P-10D	EPA 8260	ALA	18
5027523033	MMW-167S	EPA 8260	ALA	18
5027523034	MMW-167D	EPA 8260	ALA	18
5027523035	MMW-168D	EPA 8260	ALA	18
5027523036	MMW-170S	EPA 8260	ALA	18
5027523037	MMW-170D (MS/MSD)	EPA 8260	ALA	18

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Michigan Plaza / M01046
 Pace Project No.: 5027523

Lab ID	Sample ID	Method	Analysts	Analytes Reported
5027523038	MMW-171D	EPA 8260	ALA	18
5027523039	DUP 1	EPA 8260	ALA	18
5027523040	DUP 2	EPA 8260	ALA	18
5027523041	Equipment Blank	EPA 8260	ALA	18

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: MMW-1S	Lab ID: 5027523001	Collected: 06/16/09 11:30	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/26/09 18:37	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		06/26/09 18:37	56-23-5	
Chloroform	ND	ug/L	5.0	1		06/26/09 18:37	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/26/09 18:37	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		06/26/09 18:37	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		06/26/09 18:37	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		06/26/09 18:37	100-41-4	
Methylene chloride	ND	ug/L	5.0	1		06/26/09 18:37	75-09-2	
Naphthalene	ND	ug/L	5.0	1		06/26/09 18:37	91-20-3	
Tetrachloroethene	237	ug/L	5.0	1		06/26/09 18:37	127-18-4	
Toluene	ND	ug/L	5.0	1		06/26/09 18:37	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/26/09 18:37	71-55-6	
Trichloroethene	13.4	ug/L	5.0	1		06/26/09 18:37	79-01-6	
Vinyl chloride	ND	ug/L	2.0	1		06/26/09 18:37	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/26/09 18:37	1330-20-7	
Dibromofluoromethane (S)	100 %		80-123	1		06/26/09 18:37	1868-53-7	
4-Bromofluorobenzene (S)	95 %		70-126	1		06/26/09 18:37	460-00-4	
Toluene-d8 (S)	93 %		80-116	1		06/26/09 18:37	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: MMW-2S	Lab ID: 5027523002	Collected: 06/16/09 09:45	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Benzene	ND	ug/L	5.0	1		06/26/09 19:10	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		06/26/09 19:10	56-23-5	
Chloroform	ND	ug/L	5.0	1		06/26/09 19:10	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/26/09 19:10	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		06/26/09 19:10	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		06/26/09 19:10	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		06/26/09 19:10	100-41-4	
Methylene chloride	ND	ug/L	5.0	1		06/26/09 19:10	75-09-2	
Naphthalene	ND	ug/L	5.0	1		06/26/09 19:10	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		06/26/09 19:10	127-18-4	
Toluene	ND	ug/L	5.0	1		06/26/09 19:10	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/26/09 19:10	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		06/26/09 19:10	79-01-6	
Vinyl chloride	ND	ug/L	2.0	1		06/26/09 19:10	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/26/09 19:10	1330-20-7	
Dibromofluoromethane (S)	100 %		80-123	1		06/26/09 19:10	1868-53-7	
4-Bromofluorobenzene (S)	93 %		70-126	1		06/26/09 19:10	460-00-4	
Toluene-d8 (S)	92 %		80-116	1		06/26/09 19:10	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: MMW-3S	Lab ID: 5027523003	Collected: 06/15/09 16:45	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/26/09 20:49	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		06/26/09 20:49	56-23-5	
Chloroform	ND	ug/L	5.0	1		06/26/09 20:49	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/26/09 20:49	75-35-4	
cis-1,2-Dichloroethene	11.7	ug/L	5.0	1		06/26/09 20:49	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		06/26/09 20:49	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		06/26/09 20:49	100-41-4	
Methylene chloride	ND	ug/L	5.0	1		06/26/09 20:49	75-09-2	
Naphthalene	ND	ug/L	5.0	1		06/26/09 20:49	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		06/26/09 20:49	127-18-4	
Toluene	ND	ug/L	5.0	1		06/26/09 20:49	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/26/09 20:49	71-55-6	
Trichloroethene	15.3	ug/L	5.0	1		06/26/09 20:49	79-01-6	
Vinyl chloride	3.0	ug/L	2.0	1		06/26/09 20:49	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/26/09 20:49	1330-20-7	
Dibromofluoromethane (S)	101 %		80-123	1		06/26/09 20:49	1868-53-7	
4-Bromofluorobenzene (S)	95 %		70-126	1		06/26/09 20:49	460-00-4	
Toluene-d8 (S)	93 %		80-116	1		06/26/09 20:49	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: MMW-4D	Lab ID: 5027523004	Collected: 06/15/09 16:00	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/27/09 14:55	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		06/27/09 14:55	56-23-5	
Chloroform	ND	ug/L	5.0	1		06/27/09 14:55	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/27/09 14:55	75-35-4	
cis-1,2-Dichloroethene	892	ug/L	50.0	10		06/26/09 21:22	156-59-2	
trans-1,2-Dichloroethene	7.0	ug/L	5.0	1		06/27/09 14:55	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		06/27/09 14:55	100-41-4	
Methylene chloride	ND	ug/L	5.0	1		06/27/09 14:55	75-09-2	
Naphthalene	ND	ug/L	5.0	1		06/27/09 14:55	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		06/27/09 14:55	127-18-4	
Toluene	ND	ug/L	5.0	1		06/27/09 14:55	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/27/09 14:55	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		06/27/09 14:55	79-01-6	
Vinyl chloride	142	ug/L	2.0	1		06/27/09 14:55	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/27/09 14:55	1330-20-7	
Dibromofluoromethane (S)	103 %		80-123	1		06/27/09 14:55	1868-53-7	
4-Bromofluorobenzene (S)	92 %		70-126	1		06/27/09 14:55	460-00-4	
Toluene-d8 (S)	98 %		80-116	1		06/27/09 14:55	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: MMW-5D	Lab ID: 5027523005	Collected: 06/15/09 15:35	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/27/09 15:29	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		06/27/09 15:29	56-23-5	
Chloroform	ND	ug/L	5.0	1		06/27/09 15:29	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/27/09 15:29	75-35-4	
cis-1,2-Dichloroethene	1110	ug/L	50.0	10		06/26/09 22:28	156-59-2	
trans-1,2-Dichloroethene	14.5	ug/L	5.0	1		06/27/09 15:29	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		06/27/09 15:29	100-41-4	
Methylene chloride	ND	ug/L	5.0	1		06/27/09 15:29	75-09-2	
Naphthalene	ND	ug/L	5.0	1		06/27/09 15:29	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		06/27/09 15:29	127-18-4	
Toluene	ND	ug/L	5.0	1		06/27/09 15:29	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/27/09 15:29	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		06/27/09 15:29	79-01-6	
Vinyl chloride	242	ug/L	2.0	1		06/27/09 15:29	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/27/09 15:29	1330-20-7	
Dibromofluoromethane (S)	102 %		80-123	1		06/27/09 15:29	1868-53-7	
4-Bromofluorobenzene (S)	90 %		70-126	1		06/27/09 15:29	460-00-4	
Toluene-d8 (S)	96 %		80-116	1		06/27/09 15:29	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: MMW-6D	Lab ID: 5027523006	Collected: 06/15/09 14:40	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/27/09 01:45	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		06/27/09 01:45	56-23-5	
Chloroform	ND	ug/L	5.0	1		06/27/09 01:45	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/27/09 01:45	75-35-4	
cis-1,2-Dichloroethene	8.6	ug/L	5.0	1		06/27/09 01:45	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		06/27/09 01:45	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		06/27/09 01:45	100-41-4	
Methylene chloride	ND	ug/L	5.0	1		06/27/09 01:45	75-09-2	
Naphthalene	ND	ug/L	5.0	1		06/27/09 01:45	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		06/27/09 01:45	127-18-4	
Toluene	ND	ug/L	5.0	1		06/27/09 01:45	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/27/09 01:45	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		06/27/09 01:45	79-01-6	
Vinyl chloride	111	ug/L	2.0	1		06/27/09 01:45	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/27/09 01:45	1330-20-7	
Dibromofluoromethane (S)	102 %		80-123	1		06/27/09 01:45	1868-53-7	
4-Bromofluorobenzene (S)	93 %		70-126	1		06/27/09 01:45	460-00-4	
Toluene-d8 (S)	96 %		80-116	1		06/27/09 01:45	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: MMW-7S	Lab ID: 5027523007	Collected: 06/15/09 13:30	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Benzene	ND	ug/L	5.0	1		06/27/09 02:18	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		06/27/09 02:18	56-23-5	
Chloroform	ND	ug/L	5.0	1		06/27/09 02:18	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/27/09 02:18	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		06/27/09 02:18	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		06/27/09 02:18	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		06/27/09 02:18	100-41-4	
Methylene chloride	ND	ug/L	5.0	1		06/27/09 02:18	75-09-2	
Naphthalene	ND	ug/L	5.0	1		06/27/09 02:18	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		06/27/09 02:18	127-18-4	
Toluene	ND	ug/L	5.0	1		06/27/09 02:18	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/27/09 02:18	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		06/27/09 02:18	79-01-6	
Vinyl chloride	ND	ug/L	2.0	1		06/27/09 02:18	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/27/09 02:18	1330-20-7	
Dibromofluoromethane (S)	100 %		80-123	1		06/27/09 02:18	1868-53-7	
4-Bromofluorobenzene (S)	94 %		70-126	1		06/27/09 02:18	460-00-4	
Toluene-d8 (S)	96 %		80-116	1		06/27/09 02:18	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: MMW-8S	Lab ID: 5027523008	Collected: 06/16/09 13:20	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/27/09 16:02	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		06/27/09 16:02	56-23-5	
Chloroform	ND	ug/L	5.0	1		06/27/09 16:02	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/27/09 16:02	75-35-4	
cis-1,2-Dichloroethene	94.3	ug/L	5.0	1		06/27/09 16:02	156-59-2	
trans-1,2-Dichloroethene	6.1	ug/L	5.0	1		06/27/09 16:02	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		06/27/09 16:02	100-41-4	
Methylene chloride	ND	ug/L	5.0	1		06/27/09 16:02	75-09-2	
Naphthalene	ND	ug/L	5.0	1		06/27/09 16:02	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		06/27/09 16:02	127-18-4	
Toluene	ND	ug/L	5.0	1		06/27/09 16:02	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/27/09 16:02	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		06/27/09 16:02	79-01-6	
Vinyl chloride	280	ug/L	2.0	1		06/27/09 16:02	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/27/09 16:02	1330-20-7	
Dibromofluoromethane (S)	101 %		80-123	1		06/27/09 16:02	1868-53-7	
4-Bromofluorobenzene (S)	92 %		70-126	1		06/27/09 16:02	460-00-4	
Toluene-d8 (S)	97 %		80-116	1		06/27/09 16:02	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: MMW-9S	Lab ID: 5027523009	Collected: 06/16/09 12:25	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/25/09 08:24	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		06/25/09 08:24	56-23-5	
Chloroform	ND	ug/L	5.0	1		06/25/09 08:24	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/25/09 08:24	75-35-4	
cis-1,2-Dichloroethene	4810	ug/L	500	100		06/26/09 16:24	156-59-2	
trans-1,2-Dichloroethene	64.0	ug/L	5.0	1		06/25/09 08:24	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		06/25/09 08:24	100-41-4	
Methylene chloride	ND	ug/L	5.0	1		06/25/09 08:24	75-09-2	
Naphthalene	ND	ug/L	5.0	1		06/25/09 08:24	91-20-3	
Tetrachloroethene	44.5	ug/L	5.0	1		06/25/09 08:24	127-18-4	
Toluene	ND	ug/L	5.0	1		06/25/09 08:24	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/25/09 08:24	71-55-6	
Trichloroethene	24.9	ug/L	5.0	1		06/25/09 08:24	79-01-6	
Vinyl chloride	876	ug/L	20.0	10		06/25/09 09:01	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/25/09 08:24	1330-20-7	
Dibromofluoromethane (S)	105 %		80-123	1		06/25/09 08:24	1868-53-7	
4-Bromofluorobenzene (S)	91 %		70-126	1		06/25/09 08:24	460-00-4	
Toluene-d8 (S)	99 %		80-116	1		06/25/09 08:24	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: MMW-10S	Lab ID: 5027523010	Collected: 06/16/09 12:00	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/25/09 09:38	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		06/25/09 09:38	56-23-5	
Chloroform	ND	ug/L	5.0	1		06/25/09 09:38	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/25/09 09:38	75-35-4	
cis-1,2-Dichloroethene	415	ug/L	50.0	10		06/25/09 10:15	156-59-2	
trans-1,2-Dichloroethene	12.0	ug/L	5.0	1		06/25/09 09:38	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		06/25/09 09:38	100-41-4	
Methylene chloride	ND	ug/L	5.0	1		06/25/09 09:38	75-09-2	
Naphthalene	ND	ug/L	5.0	1		06/25/09 09:38	91-20-3	
Tetrachloroethene	22.8	ug/L	5.0	1		06/25/09 09:38	127-18-4	
Toluene	ND	ug/L	5.0	1		06/25/09 09:38	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/25/09 09:38	71-55-6	
Trichloroethene	15.4	ug/L	5.0	1		06/25/09 09:38	79-01-6	
Vinyl chloride	81.4	ug/L	2.0	1		06/25/09 09:38	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/25/09 09:38	1330-20-7	
Dibromofluoromethane (S)	104 %		80-123	1		06/25/09 09:38	1868-53-7	
4-Bromofluorobenzene (S)	91 %		70-126	1		06/25/09 09:38	460-00-4	
Toluene-d8 (S)	98 %		80-116	1		06/25/09 09:38	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: MMW-11S	Lab ID: 5027523011	Collected: 06/16/09 15:45	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/25/09 10:53	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		06/25/09 10:53	56-23-5	
Chloroform	ND	ug/L	5.0	1		06/25/09 10:53	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/25/09 10:53	75-35-4	
cis-1,2-Dichloroethene	253	ug/L	5.0	1		06/25/09 10:53	156-59-2	
trans-1,2-Dichloroethene	17.9	ug/L	5.0	1		06/25/09 10:53	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		06/25/09 10:53	100-41-4	
Methylene chloride	ND	ug/L	5.0	1		06/25/09 10:53	75-09-2	
Naphthalene	ND	ug/L	5.0	1		06/25/09 10:53	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		06/25/09 10:53	127-18-4	
Toluene	ND	ug/L	5.0	1		06/25/09 10:53	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/25/09 10:53	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		06/25/09 10:53	79-01-6	
Vinyl chloride	2.8	ug/L	2.0	1		06/25/09 10:53	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/25/09 10:53	1330-20-7	
Dibromofluoromethane (S)	104 %		80-123	1		06/25/09 10:53	1868-53-7	
4-Bromofluorobenzene (S)	93 %		70-126	1		06/25/09 10:53	460-00-4	
Toluene-d8 (S)	100 %		80-116	1		06/25/09 10:53	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: MMW-11D	Lab ID: 5027523012	Collected: 06/16/09 15:28	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/27/09 03:56	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		06/27/09 03:56	56-23-5	
Chloroform	ND	ug/L	5.0	1		06/27/09 03:56	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/27/09 03:56	75-35-4	
cis-1,2-Dichloroethene	25.3	ug/L	5.0	1		06/27/09 03:56	156-59-2	
trans-1,2-Dichloroethene	6.7	ug/L	5.0	1		06/27/09 03:56	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		06/27/09 03:56	100-41-4	
Methylene chloride	ND	ug/L	5.0	1		06/27/09 03:56	75-09-2	
Naphthalene	ND	ug/L	5.0	1		06/27/09 03:56	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		06/27/09 03:56	127-18-4	
Toluene	ND	ug/L	5.0	1		06/27/09 03:56	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/27/09 03:56	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		06/27/09 03:56	79-01-6	
Vinyl chloride	ND	ug/L	2.0	1		06/27/09 03:56	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/27/09 03:56	1330-20-7	
Dibromofluoromethane (S)	102 %		80-123	1		06/27/09 03:56	1868-53-7	
4-Bromofluorobenzene (S)	93 %		70-126	1		06/27/09 03:56	460-00-4	
Toluene-d8 (S)	99 %		80-116	1		06/27/09 03:56	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: MMW-12S	Lab ID: 5027523013	Collected: 06/16/09 11:00	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/27/09 05:01	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		06/27/09 05:01	56-23-5	
Chloroform	ND	ug/L	5.0	1		06/27/09 05:01	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/27/09 05:01	75-35-4	
cis-1,2-Dichloroethene	9.7	ug/L	5.0	1		06/27/09 05:01	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		06/27/09 05:01	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		06/27/09 05:01	100-41-4	
Methylene chloride	ND	ug/L	5.0	1		06/27/09 05:01	75-09-2	
Naphthalene	ND	ug/L	5.0	1		06/27/09 05:01	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		06/27/09 05:01	127-18-4	
Toluene	ND	ug/L	5.0	1		06/27/09 05:01	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/27/09 05:01	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		06/27/09 05:01	79-01-6	
Vinyl chloride	6.5	ug/L	2.0	1		06/27/09 05:01	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/27/09 05:01	1330-20-7	
Dibromofluoromethane (S)	104 %		80-123	1		06/27/09 05:01	1868-53-7	
4-Bromofluorobenzene (S)	90 %		70-126	1		06/27/09 05:01	460-00-4	
Toluene-d8 (S)	98 %		80-116	1		06/27/09 05:01	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: MMW-13D LOW	Lab ID: 5027523014	Collected: 06/16/09 14:50	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/27/09 05:34	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		06/27/09 05:34	56-23-5	
Chloroform	ND	ug/L	5.0	1		06/27/09 05:34	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/27/09 05:34	75-35-4	
cis-1,2-Dichloroethene	613	ug/L	50.0	10		06/27/09 06:06	156-59-2	
trans-1,2-Dichloroethene	10.4	ug/L	5.0	1		06/27/09 05:34	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		06/27/09 05:34	100-41-4	
Methylene chloride	ND	ug/L	5.0	1		06/27/09 05:34	75-09-2	
Naphthalene	ND	ug/L	5.0	1		06/27/09 05:34	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		06/27/09 05:34	127-18-4	
Toluene	ND	ug/L	5.0	1		06/27/09 05:34	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/27/09 05:34	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		06/27/09 05:34	79-01-6	
Vinyl chloride	17.3	ug/L	2.0	1		06/27/09 05:34	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/27/09 05:34	1330-20-7	
Dibromofluoromethane (S)	103 %		80-123	1		06/27/09 05:34	1868-53-7	
4-Bromofluorobenzene (S)	90 %		70-126	1		06/27/09 05:34	460-00-4	
Toluene-d8 (S)	98 %		80-116	1		06/27/09 05:34	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: MMW-13D MEDIUM (29')	Lab ID: 5027523015	Collected: 06/16/09 14:50	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/27/09 06:39	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		06/27/09 06:39	56-23-5	
Chloroform	ND	ug/L	5.0	1		06/27/09 06:39	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/27/09 06:39	75-35-4	
cis-1,2-Dichloroethene	578	ug/L	50.0	10		06/27/09 07:12	156-59-2	
trans-1,2-Dichloroethene	12.1	ug/L	5.0	1		06/27/09 06:39	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		06/27/09 06:39	100-41-4	
Methylene chloride	ND	ug/L	5.0	1		06/27/09 06:39	75-09-2	
Naphthalene	ND	ug/L	5.0	1		06/27/09 06:39	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		06/27/09 06:39	127-18-4	
Toluene	ND	ug/L	5.0	1		06/27/09 06:39	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/27/09 06:39	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		06/27/09 06:39	79-01-6	
Vinyl chloride	14.9	ug/L	2.0	1		06/27/09 06:39	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/27/09 06:39	1330-20-7	
Dibromofluoromethane (S)	101 %		80-123	1		06/27/09 06:39	1868-53-7	
4-Bromofluorobenzene (S)	89 %		70-126	1		06/27/09 06:39	460-00-4	
Toluene-d8 (S)	100 %		80-116	1		06/27/09 06:39	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: MMW-13D HIGH (17')	Lab ID: 5027523016	Collected: 06/16/09 14:50	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/27/09 07:44	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		06/27/09 07:44	56-23-5	
Chloroform	ND	ug/L	5.0	1		06/27/09 07:44	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/27/09 07:44	75-35-4	
cis-1,2-Dichloroethene	597	ug/L	50.0	10		06/27/09 08:17	156-59-2	
trans-1,2-Dichloroethene	9.7	ug/L	5.0	1		06/27/09 07:44	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		06/27/09 07:44	100-41-4	
Methylene chloride	ND	ug/L	5.0	1		06/27/09 07:44	75-09-2	
Naphthalene	ND	ug/L	5.0	1		06/27/09 07:44	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		06/27/09 07:44	127-18-4	
Toluene	ND	ug/L	5.0	1		06/27/09 07:44	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/27/09 07:44	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		06/27/09 07:44	79-01-6	
Vinyl chloride	21.1	ug/L	2.0	1		06/27/09 07:44	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/27/09 07:44	1330-20-7	
Dibromofluoromethane (S)	102 %		80-123	1		06/27/09 07:44	1868-53-7	
4-Bromofluorobenzene (S)	91 %		70-126	1		06/27/09 07:44	460-00-4	
Toluene-d8 (S)	100 %		80-116	1		06/27/09 07:44	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: MMW-14D	Lab ID: 5027523017	Collected: 06/16/09 10:20	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/27/09 16:35	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		06/27/09 16:35	56-23-5	
Chloroform	ND	ug/L	5.0	1		06/27/09 16:35	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/27/09 16:35	75-35-4	
cis-1,2-Dichloroethene	648	ug/L	50.0	10		06/27/09 08:50	156-59-2	
trans-1,2-Dichloroethene	15.6	ug/L	5.0	1		06/27/09 16:35	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		06/27/09 16:35	100-41-4	
Methylene chloride	ND	ug/L	5.0	1		06/27/09 16:35	75-09-2	
Naphthalene	ND	ug/L	5.0	1		06/27/09 16:35	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		06/27/09 16:35	127-18-4	
Toluene	ND	ug/L	5.0	1		06/27/09 16:35	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/27/09 16:35	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		06/27/09 16:35	79-01-6	
Vinyl chloride	57.6	ug/L	2.0	1		06/27/09 16:35	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/27/09 16:35	1330-20-7	
Dibromofluoromethane (S)	102 %		80-123	1		06/27/09 16:35	1868-53-7	
4-Bromofluorobenzene (S)	91 %		70-126	1		06/27/09 16:35	460-00-4	
Toluene-d8 (S)	98 %		80-116	1		06/27/09 16:35	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: MMW-C-02	Lab ID: 5027523018	Collected: 06/18/09 15:40	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/27/09 09:22	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		06/27/09 09:22	56-23-5	
Chloroform	ND	ug/L	5.0	1		06/27/09 09:22	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/27/09 09:22	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		06/27/09 09:22	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		06/27/09 09:22	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		06/27/09 09:22	100-41-4	
Methylene chloride	ND	ug/L	5.0	1		06/27/09 09:22	75-09-2	
Naphthalene	ND	ug/L	5.0	1		06/27/09 09:22	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		06/27/09 09:22	127-18-4	
Toluene	ND	ug/L	5.0	1		06/27/09 09:22	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/27/09 09:22	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		06/27/09 09:22	79-01-6	
Vinyl chloride	ND	ug/L	2.0	1		06/27/09 09:22	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/27/09 09:22	1330-20-7	
Dibromofluoromethane (S)	104 %		80-123	1		06/27/09 09:22	1868-53-7	
4-Bromofluorobenzene (S)	90 %		70-126	1		06/27/09 09:22	460-00-4	
Toluene-d8 (S)	100 %		80-116	1		06/27/09 09:22	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: MMW-C-01	Lab ID: 5027523019	Collected: 06/18/09 15:15	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/27/09 11:00	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		06/27/09 11:00	56-23-5	
Chloroform	ND	ug/L	5.0	1		06/27/09 11:00	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/27/09 11:00	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		06/27/09 11:00	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		06/27/09 11:00	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		06/27/09 11:00	100-41-4	
Methylene chloride	ND	ug/L	5.0	1		06/27/09 11:00	75-09-2	
Naphthalene	ND	ug/L	5.0	1		06/27/09 11:00	91-20-3	
Tetrachloroethene	23.2	ug/L	5.0	1		06/27/09 11:00	127-18-4	
Toluene	ND	ug/L	5.0	1		06/27/09 11:00	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/27/09 11:00	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		06/27/09 11:00	79-01-6	
Vinyl chloride	ND	ug/L	2.0	1		06/27/09 11:00	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/27/09 11:00	1330-20-7	
Dibromofluoromethane (S)	101 %		80-123	1		06/27/09 11:00	1868-53-7	
4-Bromofluorobenzene (S)	91 %		70-126	1		06/27/09 11:00	460-00-4	
Toluene-d8 (S)	98 %		80-116	1		06/27/09 11:00	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: MMW-P-01	Lab ID: 5027523020	Collected: 06/17/09 12:25	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	50.0	10		06/27/09 17:08	71-43-2	
Carbon tetrachloride	ND	ug/L	50.0	10		06/27/09 17:08	56-23-5	
Chloroform	ND	ug/L	50.0	10		06/27/09 17:08	67-66-3	
1,1-Dichloroethene	ND	ug/L	50.0	10		06/27/09 17:08	75-35-4	
cis-1,2-Dichloroethene	4020	ug/L	500	100		06/27/09 17:41	156-59-2	
trans-1,2-Dichloroethene	63.9	ug/L	50.0	10		06/27/09 17:08	156-60-5	
Ethylbenzene	ND	ug/L	50.0	10		06/27/09 17:08	100-41-4	
Methylene chloride	ND	ug/L	50.0	10		06/27/09 17:08	75-09-2	
Naphthalene	ND	ug/L	50.0	10		06/27/09 17:08	91-20-3	
Tetrachloroethene	ND	ug/L	50.0	10		06/27/09 17:08	127-18-4	
Toluene	ND	ug/L	50.0	10		06/27/09 17:08	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	50.0	10		06/27/09 17:08	71-55-6	
Trichloroethene	ND	ug/L	50.0	10		06/27/09 17:08	79-01-6	
Vinyl chloride	1840	ug/L	20.0	10		06/27/09 17:08	75-01-4	
Xylene (Total)	ND	ug/L	100	10		06/27/09 17:08	1330-20-7	
Dibromofluoromethane (S)	100 %		80-123	10		06/27/09 17:08	1868-53-7	D4
4-Bromofluorobenzene (S)	91 %		70-126	10		06/27/09 17:08	460-00-4	
Toluene-d8 (S)	97 %		80-116	10		06/27/09 17:08	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: MMW-P-02	Lab ID: 5027523021	Collected: 06/17/09 10:20	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/27/09 18:14	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		06/27/09 18:14	56-23-5	
Chloroform	ND	ug/L	5.0	1		06/27/09 18:14	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/27/09 18:14	75-35-4	
cis-1,2-Dichloroethene	54.2	ug/L	5.0	1		06/27/09 18:14	156-59-2	
trans-1,2-Dichloroethene	9.2	ug/L	5.0	1		06/27/09 18:14	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		06/27/09 18:14	100-41-4	
Methylene chloride	ND	ug/L	5.0	1		06/27/09 18:14	75-09-2	
Naphthalene	ND	ug/L	5.0	1		06/27/09 18:14	91-20-3	
Tetrachloroethene	5.1	ug/L	5.0	1		06/27/09 18:14	127-18-4	
Toluene	ND	ug/L	5.0	1		06/27/09 18:14	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/27/09 18:14	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		06/27/09 18:14	79-01-6	
Vinyl chloride	80.6	ug/L	2.0	1		06/27/09 18:14	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/27/09 18:14	1330-20-7	
Dibromofluoromethane (S)	100 %		80-123	1		06/27/09 18:14	1868-53-7	
4-Bromofluorobenzene (S)	91 %		70-126	1		06/27/09 18:14	460-00-4	
Toluene-d8 (S)	98 %		80-116	1		06/27/09 18:14	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: MMW-P-03S	Lab ID: 5027523022	Collected: 06/17/09 10:40	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/27/09 18:46	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		06/27/09 18:46	56-23-5	
Chloroform	ND	ug/L	5.0	1		06/27/09 18:46	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/27/09 18:46	75-35-4	
cis-1,2-Dichloroethene	332	ug/L	50.0	10		06/27/09 19:19	156-59-2	
trans-1,2-Dichloroethene	22.3	ug/L	5.0	1		06/27/09 18:46	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		06/27/09 18:46	100-41-4	
Methylene chloride	ND	ug/L	5.0	1		06/27/09 18:46	75-09-2	
Naphthalene	ND	ug/L	5.0	1		06/27/09 18:46	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		06/27/09 18:46	127-18-4	
Toluene	ND	ug/L	5.0	1		06/27/09 18:46	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/27/09 18:46	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		06/27/09 18:46	79-01-6	
Vinyl chloride	759	ug/L	20.0	10		06/27/09 19:19	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/27/09 18:46	1330-20-7	
Dibromofluoromethane (S)	103 %		80-123	1		06/27/09 18:46	1868-53-7	
4-Bromofluorobenzene (S)	92 %		70-126	1		06/27/09 18:46	460-00-4	
Toluene-d8 (S)	97 %		80-116	1		06/27/09 18:46	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: MMW-P-03D	Lab ID: 5027523023	Collected: 06/17/09 11:05	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/27/09 19:52	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		06/27/09 19:52	56-23-5	
Chloroform	ND	ug/L	5.0	1		06/27/09 19:52	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/27/09 19:52	75-35-4	
cis-1,2-Dichloroethene	14.9	ug/L	5.0	1		06/27/09 19:52	156-59-2	
trans-1,2-Dichloroethene	5.9	ug/L	5.0	1		06/27/09 19:52	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		06/27/09 19:52	100-41-4	
Methylene chloride	ND	ug/L	5.0	1		06/27/09 19:52	75-09-2	
Naphthalene	ND	ug/L	5.0	1		06/27/09 19:52	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		06/27/09 19:52	127-18-4	
Toluene	ND	ug/L	5.0	1		06/27/09 19:52	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/27/09 19:52	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		06/27/09 19:52	79-01-6	
Vinyl chloride	137	ug/L	2.0	1		06/27/09 19:52	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/27/09 19:52	1330-20-7	
Dibromofluoromethane (S)	102 %		80-123	1		06/27/09 19:52	1868-53-7	
4-Bromofluorobenzene (S)	90 %		70-126	1		06/27/09 19:52	460-00-4	
Toluene-d8 (S)	97 %		80-116	1		06/27/09 19:52	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: MMW-P-04	Lab ID: 5027523024	Collected: 06/17/09 10:45	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/27/09 20:25	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		06/27/09 20:25	56-23-5	
Chloroform	ND	ug/L	5.0	1		06/27/09 20:25	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/27/09 20:25	75-35-4	
cis-1,2-Dichloroethene	827	ug/L	50.0	10		06/29/09 14:51	156-59-2	
trans-1,2-Dichloroethene	22.0	ug/L	5.0	1		06/27/09 20:25	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		06/27/09 20:25	100-41-4	
Methylene chloride	ND	ug/L	5.0	1		06/27/09 20:25	75-09-2	
Naphthalene	ND	ug/L	5.0	1		06/27/09 20:25	91-20-3	
Tetrachloroethene	35.3	ug/L	5.0	1		06/27/09 20:25	127-18-4	
Toluene	ND	ug/L	5.0	1		06/27/09 20:25	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/27/09 20:25	71-55-6	
Trichloroethene	5.4	ug/L	5.0	1		06/27/09 20:25	79-01-6	
Vinyl chloride	2.0	ug/L	2.0	1		06/27/09 20:25	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/27/09 20:25	1330-20-7	
Dibromofluoromethane (S)	104 %		80-123	1		06/27/09 20:25	1868-53-7	
4-Bromofluorobenzene (S)	95 %		70-126	1		06/27/09 20:25	460-00-4	
Toluene-d8 (S)	96 %		80-116	1		06/27/09 20:25	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: MMW-P-05	Lab ID: 5027523025	Collected: 06/17/09 12:00	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/27/09 20:58	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		06/27/09 20:58	56-23-5	
Chloroform	ND	ug/L	5.0	1		06/27/09 20:58	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/27/09 20:58	75-35-4	
cis-1,2-Dichloroethene	10.9	ug/L	5.0	1		06/27/09 20:58	156-59-2	
trans-1,2-Dichloroethene	6.6	ug/L	5.0	1		06/27/09 20:58	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		06/27/09 20:58	100-41-4	
Methylene chloride	ND	ug/L	5.0	1		06/27/09 20:58	75-09-2	
Naphthalene	ND	ug/L	5.0	1		06/27/09 20:58	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		06/27/09 20:58	127-18-4	
Toluene	ND	ug/L	5.0	1		06/27/09 20:58	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/27/09 20:58	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		06/27/09 20:58	79-01-6	
Vinyl chloride	ND	ug/L	2.0	1		06/27/09 20:58	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/27/09 20:58	1330-20-7	
Dibromofluoromethane (S)	106 %		80-123	1		06/27/09 20:58	1868-53-7	
4-Bromofluorobenzene (S)	91 %		70-126	1		06/27/09 20:58	460-00-4	
Toluene-d8 (S)	97 %		80-116	1		06/27/09 20:58	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: MMW-P-06	Lab ID: 5027523026	Collected: 06/17/09 11:40	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/27/09 21:31	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		06/27/09 21:31	56-23-5	
Chloroform	ND	ug/L	5.0	1		06/27/09 21:31	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/27/09 21:31	75-35-4	
cis-1,2-Dichloroethene	145	ug/L	5.0	1		06/27/09 21:31	156-59-2	
trans-1,2-Dichloroethene	22.2	ug/L	5.0	1		06/27/09 21:31	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		06/27/09 21:31	100-41-4	
Methylene chloride	ND	ug/L	5.0	1		06/27/09 21:31	75-09-2	
Naphthalene	ND	ug/L	5.0	1		06/27/09 21:31	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		06/27/09 21:31	127-18-4	
Toluene	ND	ug/L	5.0	1		06/27/09 21:31	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/27/09 21:31	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		06/27/09 21:31	79-01-6	
Vinyl chloride	90.6	ug/L	2.0	1		06/27/09 21:31	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/27/09 21:31	1330-20-7	
Dibromofluoromethane (S)	104 %		80-123	1		06/27/09 21:31	1868-53-7	
4-Bromofluorobenzene (S)	91 %		70-126	1		06/27/09 21:31	460-00-4	
Toluene-d8 (S)	97 %		80-116	1		06/27/09 21:31	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: MMW-P-07	Lab ID: 5027523027	Collected: 06/17/09 12:45	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/28/09 02:26	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		06/28/09 02:26	56-23-5	
Chloroform	ND	ug/L	5.0	1		06/28/09 02:26	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/28/09 02:26	75-35-4	
cis-1,2-Dichloroethene	87.1	ug/L	5.0	1		06/28/09 02:26	156-59-2	
trans-1,2-Dichloroethene	9.4	ug/L	5.0	1		06/28/09 02:26	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		06/28/09 02:26	100-41-4	
Methylene chloride	ND	ug/L	5.0	1		06/28/09 02:26	75-09-2	
Naphthalene	ND	ug/L	5.0	1		06/28/09 02:26	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		06/28/09 02:26	127-18-4	
Toluene	ND	ug/L	5.0	1		06/28/09 02:26	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/28/09 02:26	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		06/28/09 02:26	79-01-6	
Vinyl chloride	1130	ug/L	20.0	10		06/28/09 02:58	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/28/09 02:26	1330-20-7	
Dibromofluoromethane (S)	101 %		80-123	1		06/28/09 02:26	1868-53-7	
4-Bromofluorobenzene (S)	92 %		70-126	1		06/28/09 02:26	460-00-4	
Toluene-d8 (S)	96 %		80-116	1		06/28/09 02:26	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: MMW-P-08	Lab ID: 5027523028	Collected: 06/17/09 13:05	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	125	25		06/28/09 03:31	71-43-2	
Carbon tetrachloride	ND	ug/L	125	25		06/28/09 03:31	56-23-5	
Chloroform	ND	ug/L	125	25		06/28/09 03:31	67-66-3	
1,1-Dichloroethene	ND	ug/L	125	25		06/28/09 03:31	75-35-4	
cis-1,2-Dichloroethene	356	ug/L	125	25		06/28/09 03:31	156-59-2	
trans-1,2-Dichloroethene	145	ug/L	125	25		06/28/09 03:31	156-60-5	
Ethylbenzene	ND	ug/L	125	25		06/28/09 03:31	100-41-4	
Methylene chloride	ND	ug/L	125	25		06/28/09 03:31	75-09-2	
Naphthalene	ND	ug/L	125	25		06/28/09 03:31	91-20-3	
Tetrachloroethene	ND	ug/L	125	25		06/28/09 03:31	127-18-4	
Toluene	ND	ug/L	125	25		06/28/09 03:31	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	125	25		06/28/09 03:31	71-55-6	
Trichloroethene	ND	ug/L	125	25		06/28/09 03:31	79-01-6	
Vinyl chloride	7200	ug/L	50.0	25		06/28/09 03:31	75-01-4	
Xylene (Total)	ND	ug/L	250	25		06/28/09 03:31	1330-20-7	
Dibromofluoromethane (S)	104 %		80-123	25		06/28/09 03:31	1868-53-7	1d
4-Bromofluorobenzene (S)	91 %		70-126	25		06/28/09 03:31	460-00-4	
Toluene-d8 (S)	97 %		80-116	25		06/28/09 03:31	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: MMW-P-09S	Lab ID: 5027523029	Collected: 06/16/09 17:05	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/27/09 22:04	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		06/27/09 22:04	56-23-5	
Chloroform	ND	ug/L	5.0	1		06/27/09 22:04	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/27/09 22:04	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		06/27/09 22:04	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		06/27/09 22:04	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		06/27/09 22:04	100-41-4	
Methylene chloride	ND	ug/L	5.0	1		06/27/09 22:04	75-09-2	
Naphthalene	ND	ug/L	5.0	1		06/27/09 22:04	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		06/27/09 22:04	127-18-4	
Toluene	ND	ug/L	5.0	1		06/27/09 22:04	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/27/09 22:04	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		06/27/09 22:04	79-01-6	
Vinyl chloride	ND	ug/L	2.0	1		06/27/09 22:04	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/27/09 22:04	1330-20-7	
Dibromofluoromethane (S)	102 %		80-123	1		06/27/09 22:04	1868-53-7	
4-Bromofluorobenzene (S)	89 %		70-126	1		06/27/09 22:04	460-00-4	
Toluene-d8 (S)	97 %		80-116	1		06/27/09 22:04	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: MMW-P-09D	Lab ID: 5027523030	Collected: 06/16/09 17:32	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/27/09 23:42	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		06/27/09 23:42	56-23-5	
Chloroform	ND	ug/L	5.0	1		06/27/09 23:42	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/27/09 23:42	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		06/27/09 23:42	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		06/27/09 23:42	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		06/27/09 23:42	100-41-4	
Methylene chloride	ND	ug/L	5.0	1		06/27/09 23:42	75-09-2	
Naphthalene	ND	ug/L	5.0	1		06/27/09 23:42	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		06/27/09 23:42	127-18-4	
Toluene	ND	ug/L	5.0	1		06/27/09 23:42	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/27/09 23:42	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		06/27/09 23:42	79-01-6	
Vinyl chloride	73.5	ug/L	2.0	1		06/27/09 23:42	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/27/09 23:42	1330-20-7	
Dibromofluoromethane (S)	99 %		80-123	1		06/27/09 23:42	1868-53-7	
4-Bromofluorobenzene (S)	91 %		70-126	1		06/27/09 23:42	460-00-4	
Toluene-d8 (S)	97 %		80-116	1		06/27/09 23:42	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: MMW-P-10S	Lab ID: 5027523031	Collected: 06/17/09 13:50	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/28/09 04:37	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		06/28/09 04:37	56-23-5	
Chloroform	ND	ug/L	5.0	1		06/28/09 04:37	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/28/09 04:37	75-35-4	
cis-1,2-Dichloroethene	331	ug/L	50.0	10		06/28/09 05:09	156-59-2	
trans-1,2-Dichloroethene	20.5	ug/L	5.0	1		06/28/09 04:37	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		06/28/09 04:37	100-41-4	
Methylene chloride	ND	ug/L	5.0	1		06/28/09 04:37	75-09-2	
Naphthalene	ND	ug/L	5.0	1		06/28/09 04:37	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		06/28/09 04:37	127-18-4	
Toluene	ND	ug/L	5.0	1		06/28/09 04:37	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/28/09 04:37	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		06/28/09 04:37	79-01-6	
Vinyl chloride	63.9	ug/L	2.0	1		06/28/09 04:37	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/28/09 04:37	1330-20-7	
Dibromofluoromethane (S)	101 %		80-123	1		06/28/09 04:37	1868-53-7	
4-Bromofluorobenzene (S)	88 %		70-126	1		06/28/09 04:37	460-00-4	
Toluene-d8 (S)	93 %		80-116	1		06/28/09 04:37	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: MMW-P-10D	Lab ID: 5027523032	Collected: 06/17/09 13:30	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/28/09 05:42	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		06/28/09 05:42	56-23-5	
Chloroform	ND	ug/L	5.0	1		06/28/09 05:42	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/28/09 05:42	75-35-4	
cis-1,2-Dichloroethene	3710	ug/L	500	100		06/29/09 16:02	156-59-2	
trans-1,2-Dichloroethene	9.6	ug/L	5.0	1		06/28/09 05:42	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		06/28/09 05:42	100-41-4	
Methylene chloride	ND	ug/L	5.0	1		06/28/09 05:42	75-09-2	
Naphthalene	ND	ug/L	5.0	1		06/28/09 05:42	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		06/28/09 05:42	127-18-4	
Toluene	ND	ug/L	5.0	1		06/28/09 05:42	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/28/09 05:42	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		06/28/09 05:42	79-01-6	
Vinyl chloride	9070	ug/L	200	100		06/29/09 16:02	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/28/09 05:42	1330-20-7	
Dibromofluoromethane (S)	102 %		80-123	1		06/28/09 05:42	1868-53-7	
4-Bromofluorobenzene (S)	89 %		70-126	1		06/28/09 05:42	460-00-4	
Toluene-d8 (S)	98 %		80-116	1		06/28/09 05:42	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: MMW-167S	Lab ID: 5027523033	Collected: 06/17/09 09:30	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/28/09 06:47	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		06/28/09 06:47	56-23-5	
Chloroform	ND	ug/L	5.0	1		06/28/09 06:47	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/28/09 06:47	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		06/28/09 06:47	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		06/28/09 06:47	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		06/28/09 06:47	100-41-4	
Methylene chloride	ND	ug/L	5.0	1		06/28/09 06:47	75-09-2	
Naphthalene	ND	ug/L	5.0	1		06/28/09 06:47	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		06/28/09 06:47	127-18-4	
Toluene	ND	ug/L	5.0	1		06/28/09 06:47	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/28/09 06:47	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		06/28/09 06:47	79-01-6	
Vinyl chloride	ND	ug/L	2.0	1		06/28/09 06:47	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/28/09 06:47	1330-20-7	
Dibromofluoromethane (S)	102 %		80-123	1		06/28/09 06:47	1868-53-7	
4-Bromofluorobenzene (S)	89 %		70-126	1		06/28/09 06:47	460-00-4	
Toluene-d8 (S)	97 %		80-116	1		06/28/09 06:47	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: MMW-167D	Lab ID: 5027523034	Collected: 06/17/09 09:55	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/28/09 07:20	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		06/28/09 07:20	56-23-5	
Chloroform	ND	ug/L	5.0	1		06/28/09 07:20	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/28/09 07:20	75-35-4	
cis-1,2-Dichloroethene	612	ug/L	50.0	10		06/28/09 07:53	156-59-2	
trans-1,2-Dichloroethene	22.1	ug/L	5.0	1		06/28/09 07:20	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		06/28/09 07:20	100-41-4	
Methylene chloride	ND	ug/L	5.0	1		06/28/09 07:20	75-09-2	
Naphthalene	ND	ug/L	5.0	1		06/28/09 07:20	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		06/28/09 07:20	127-18-4	
Toluene	ND	ug/L	5.0	1		06/28/09 07:20	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/28/09 07:20	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		06/28/09 07:20	79-01-6	
Vinyl chloride	23.8	ug/L	2.0	1		06/28/09 07:20	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/28/09 07:20	1330-20-7	
Dibromofluoromethane (S)	102 %		80-123	1		06/28/09 07:20	1868-53-7	
4-Bromofluorobenzene (S)	88 %		70-126	1		06/28/09 07:20	460-00-4	
Toluene-d8 (S)	98 %		80-116	1		06/28/09 07:20	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: MMW-168D	Lab ID: 5027523035	Collected: 06/18/09 14:25	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/28/09 08:25	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		06/28/09 08:25	56-23-5	
Chloroform	ND	ug/L	5.0	1		06/28/09 08:25	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/28/09 08:25	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		06/28/09 08:25	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		06/28/09 08:25	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		06/28/09 08:25	100-41-4	
Methylene chloride	ND	ug/L	5.0	1		06/28/09 08:25	75-09-2	
Naphthalene	ND	ug/L	5.0	1		06/28/09 08:25	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		06/28/09 08:25	127-18-4	
Toluene	ND	ug/L	5.0	1		06/28/09 08:25	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/28/09 08:25	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		06/28/09 08:25	79-01-6	
Vinyl chloride	14.5	ug/L	2.0	1		06/28/09 08:25	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/28/09 08:25	1330-20-7	
Dibromofluoromethane (S)	102 %		80-123	1		06/28/09 08:25	1868-53-7	
4-Bromofluorobenzene (S)	88 %		70-126	1		06/28/09 08:25	460-00-4	
Toluene-d8 (S)	96 %		80-116	1		06/28/09 08:25	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: MMW-170S	Lab ID: 5027523036	Collected: 06/17/09 09:05	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/28/09 08:58	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		06/28/09 08:58	56-23-5	
Chloroform	ND	ug/L	5.0	1		06/28/09 08:58	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/28/09 08:58	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		06/28/09 08:58	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		06/28/09 08:58	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		06/28/09 08:58	100-41-4	
Methylene chloride	ND	ug/L	5.0	1		06/28/09 08:58	75-09-2	
Naphthalene	ND	ug/L	5.0	1		06/28/09 08:58	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		06/28/09 08:58	127-18-4	
Toluene	ND	ug/L	5.0	1		06/28/09 08:58	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/28/09 08:58	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		06/28/09 08:58	79-01-6	
Vinyl chloride	2.1	ug/L	2.0	1		06/28/09 08:58	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/28/09 08:58	1330-20-7	
Dibromofluoromethane (S)	101 %		80-123	1		06/28/09 08:58	1868-53-7	
4-Bromofluorobenzene (S)	89 %		70-126	1		06/28/09 08:58	460-00-4	
Toluene-d8 (S)	98 %		80-116	1		06/28/09 08:58	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: MMW-170D (MS/MSD)	Lab ID: 5027523037	Collected: 06/17/09 08:40	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/28/09 09:31	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		06/28/09 09:31	56-23-5	
Chloroform	ND	ug/L	5.0	1		06/28/09 09:31	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/28/09 09:31	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		06/28/09 09:31	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		06/28/09 09:31	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		06/28/09 09:31	100-41-4	
Methylene chloride	ND	ug/L	5.0	1		06/28/09 09:31	75-09-2	
Naphthalene	ND	ug/L	5.0	1		06/28/09 09:31	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		06/28/09 09:31	127-18-4	
Toluene	ND	ug/L	5.0	1		06/28/09 09:31	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/28/09 09:31	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		06/28/09 09:31	79-01-6	
Vinyl chloride	174	ug/L	2.0	1		06/28/09 09:31	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/28/09 09:31	1330-20-7	
Dibromofluoromethane (S)	102 %		80-123	1		06/28/09 09:31	1868-53-7	
4-Bromofluorobenzene (S)	87 %		70-126	1		06/28/09 09:31	460-00-4	
Toluene-d8 (S)	96 %		80-116	1		06/28/09 09:31	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: MMW-171D	Lab ID: 5027523038	Collected: 06/16/09 16:40	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/28/09 11:09	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		06/28/09 11:09	56-23-5	
Chloroform	ND	ug/L	5.0	1		06/28/09 11:09	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/28/09 11:09	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		06/28/09 11:09	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		06/28/09 11:09	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		06/28/09 11:09	100-41-4	
Methylene chloride	ND	ug/L	5.0	1		06/28/09 11:09	75-09-2	
Naphthalene	ND	ug/L	5.0	1		06/28/09 11:09	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		06/28/09 11:09	127-18-4	
Toluene	ND	ug/L	5.0	1		06/28/09 11:09	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/28/09 11:09	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		06/28/09 11:09	79-01-6	
Vinyl chloride	2.2	ug/L	2.0	1		06/28/09 11:09	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/28/09 11:09	1330-20-7	
Dibromofluoromethane (S)	100 %		80-123	1		06/28/09 11:09	1868-53-7	
4-Bromofluorobenzene (S)	91 %		70-126	1		06/28/09 11:09	460-00-4	
Toluene-d8 (S)	97 %		80-116	1		06/28/09 11:09	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: DUP 1	Lab ID: 5027523039	Collected: 06/16/09 08:00	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	5.0	1		06/29/09 18:05	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		06/29/09 18:05	56-23-5	
Chloroform	ND	ug/L	5.0	1		06/29/09 18:05	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/29/09 18:05	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		06/29/09 18:05	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		06/29/09 18:05	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		06/29/09 18:05	100-41-4	
Methylene chloride	ND	ug/L	5.0	1		06/29/09 18:05	75-09-2	
Naphthalene	ND	ug/L	5.0	1		06/29/09 18:05	91-20-3	
Tetrachloroethene	250	ug/L	5.0	1		06/29/09 18:05	127-18-4	
Toluene	ND	ug/L	5.0	1		06/29/09 18:05	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/29/09 18:05	71-55-6	
Trichloroethene	12.9	ug/L	5.0	1		06/29/09 18:05	79-01-6	
Vinyl chloride	ND	ug/L	2.0	1		06/29/09 18:05	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/29/09 18:05	1330-20-7	
Dibromofluoromethane (S)	102 %		80-123	1		06/29/09 18:05	1868-53-7	
4-Bromofluorobenzene (S)	88 %		70-126	1		06/29/09 18:05	460-00-4	
Toluene-d8 (S)	95 %		80-116	1		06/29/09 18:05	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: DUP 2	Lab ID: 5027523040	Collected: 06/16/09 08:00	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Benzene	ND	ug/L	125	25		06/28/09 15:30	71-43-2	
Carbon tetrachloride	ND	ug/L	125	25		06/28/09 15:30	56-23-5	
Chloroform	ND	ug/L	125	25		06/28/09 15:30	67-66-3	
1,1-Dichloroethene	ND	ug/L	125	25		06/28/09 15:30	75-35-4	
cis-1,2-Dichloroethene	325	ug/L	125	25		06/28/09 15:30	156-59-2	
trans-1,2-Dichloroethene	146	ug/L	125	25		06/28/09 15:30	156-60-5	
Ethylbenzene	ND	ug/L	125	25		06/28/09 15:30	100-41-4	
Methylene chloride	ND	ug/L	125	25		06/28/09 15:30	75-09-2	
Naphthalene	ND	ug/L	125	25		06/28/09 15:30	91-20-3	
Tetrachloroethene	ND	ug/L	125	25		06/28/09 15:30	127-18-4	
Toluene	ND	ug/L	125	25		06/28/09 15:30	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	125	25		06/28/09 15:30	71-55-6	
Trichloroethene	ND	ug/L	125	25		06/28/09 15:30	79-01-6	
Vinyl chloride	8810	ug/L	1000	500		06/28/09 16:03	75-01-4	
Xylene (Total)	ND	ug/L	250	25		06/28/09 15:30	1330-20-7	
Dibromofluoromethane (S)	102 %		80-123	25		06/28/09 15:30	1868-53-7	1d
4-Bromofluorobenzene (S)	90 %		70-126	25		06/28/09 15:30	460-00-4	
Toluene-d8 (S)	97 %		80-116	25		06/28/09 15:30	2037-26-5	

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ANALYTICAL RESULTS

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Sample: Equipment Blank	Lab ID: 5027523041	Collected: 06/18/09 16:50	Received: 06/22/09 10:54	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Benzene	ND	ug/L	5.0	1		06/28/09 11:41	71-43-2	
Carbon tetrachloride	ND	ug/L	5.0	1		06/28/09 11:41	56-23-5	
Chloroform	ND	ug/L	5.0	1		06/28/09 11:41	67-66-3	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/28/09 11:41	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		06/28/09 11:41	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		06/28/09 11:41	156-60-5	
Ethylbenzene	ND	ug/L	5.0	1		06/28/09 11:41	100-41-4	
Methylene chloride	ND	ug/L	5.0	1		06/28/09 11:41	75-09-2	
Naphthalene	ND	ug/L	5.0	1		06/28/09 11:41	91-20-3	
Tetrachloroethene	ND	ug/L	5.0	1		06/28/09 11:41	127-18-4	
Toluene	ND	ug/L	5.0	1		06/28/09 11:41	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/28/09 11:41	71-55-6	
Trichloroethene	ND	ug/L	5.0	1		06/28/09 11:41	79-01-6	
Vinyl chloride	ND	ug/L	2.0	1		06/28/09 11:41	75-01-4	
Xylene (Total)	ND	ug/L	10.0	1		06/28/09 11:41	1330-20-7	
Dibromofluoromethane (S)	101 %		80-123	1		06/28/09 11:41	1868-53-7	
4-Bromofluorobenzene (S)	91 %		70-126	1		06/28/09 11:41	460-00-4	
Toluene-d8 (S)	97 %		80-116	1		06/28/09 11:41	2037-26-5	

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QUALITY CONTROL DATA

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

QC Batch:	MSV/16979	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV
Associated Lab Samples:	5027523009, 5027523010, 5027523011		

METHOD BLANK: 314813 Matrix: Water

Associated Lab Samples: 5027523009, 5027523010, 5027523011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	5.0	06/25/09 02:15	
1,1-Dichloroethene	ug/L	ND	5.0	06/25/09 02:15	
Benzene	ug/L	ND	5.0	06/25/09 02:15	
Carbon tetrachloride	ug/L	ND	5.0	06/25/09 02:15	
Chloroform	ug/L	ND	5.0	06/25/09 02:15	
cis-1,2-Dichloroethene	ug/L	ND	5.0	06/25/09 02:15	
Ethylbenzene	ug/L	ND	5.0	06/25/09 02:15	
Methylene chloride	ug/L	8.2	5.0	06/25/09 02:15	B-
Naphthalene	ug/L	ND	5.0	06/25/09 02:15	
Tetrachloroethene	ug/L	ND	5.0	06/25/09 02:15	
Toluene	ug/L	ND	5.0	06/25/09 02:15	
trans-1,2-Dichloroethene	ug/L	ND	5.0	06/25/09 02:15	
Trichloroethene	ug/L	ND	5.0	06/25/09 02:15	
Vinyl chloride	ug/L	ND	2.0	06/25/09 02:15	
Xylene (Total)	ug/L	ND	10.0	06/25/09 02:15	
4-Bromofluorobenzene (S)	%	94	70-126	06/25/09 02:15	
Dibromofluoromethane (S)	%	102	80-123	06/25/09 02:15	
Toluene-d8 (S)	%	94	80-116	06/25/09 02:15	

LABORATORY CONTROL SAMPLE: 314814

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	53.2	106	69-136	
1,1-Dichloroethene	ug/L	50	49.3	99	63-128	
Benzene	ug/L	50	48.7	97	78-127	
Carbon tetrachloride	ug/L	50	50.0	100	62-143	
Chloroform	ug/L	50	47.9	96	74-131	
cis-1,2-Dichloroethene	ug/L	50	47.3	95	74-128	
Ethylbenzene	ug/L	50	48.0	96	81-126	
Methylene chloride	ug/L	50	66.3	133	32-164	
Naphthalene	ug/L	50	44.3	89	61-135	
Tetrachloroethene	ug/L	50	45.5	91	60-119	
Toluene	ug/L	50	46.2	92	75-129	
trans-1,2-Dichloroethene	ug/L	50	52.3	105	71-126	
Trichloroethene	ug/L	50	48.5	97	74-130	
Vinyl chloride	ug/L	50	49.4	99	55-141	
Xylene (Total)	ug/L	150	144	96	76-132	
4-Bromofluorobenzene (S)	%			101	70-126	
Dibromofluoromethane (S)	%			101	80-123	
Toluene-d8 (S)	%			96	80-116	

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QUALITY CONTROL DATA

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Parameter	Units	5027213012		MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	314816				
		Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	MSD Result				Max				
											RPD	RPD			
1,1,1-Trichloroethane	ug/L	ND	50	50	48.0	50.6	96	101	64-143	5	20				
1,1-Dichloroethene	ug/L	ND	50	50	53.3	54.5	107	109	55-140	2	20				
Benzene	ug/L	ND	50	50	50.2	50.9	100	102	63-141	1	20				
Carbon tetrachloride	ug/L	ND	50	50	43.3	46.2	87	92	54-145	7	20				
Chloroform	ug/L	ND	50	50	49.1	50.5	98	101	67-134	3	20				
cis-1,2-Dichloroethene	ug/L	ND	50	50	49.4	43.4	99	87	65-132	13	20				
Ethylbenzene	ug/L	ND	50	50	50.3	51.4	101	103	44-151	2	20				
Methylene chloride	ug/L	ND	50	50	52.8	55.5	106	111	46-154	5	20				
Naphthalene	ug/L	ND	50	50	41.1	42.6	82	85	44-138	3	20				
Tetrachloroethene	ug/L	ND	50	50	44.5	45.3	89	91	25-146	2	20				
Toluene	ug/L	ND	50	50	51.2	51.5	102	103	59-142	.5	20				
trans-1,2-Dichloroethene	ug/L	ND	50	50	53.7	55.5	107	111	60-137	3	20				
Trichloroethene	ug/L	ND	50	50	48.1	49.1	96	98	61-137	2	20				
Vinyl chloride	ug/L	ND	50	50	55.2	56.5	110	113	51-144	2	20				
Xylene (Total)	ug/L	ND	150	150	150	154	100	103	44-152	3	20				
4-Bromofluorobenzene (S)	%						102	102	70-126		20				
Dibromofluoromethane (S)	%						100	101	80-123		20				
Toluene-d8 (S)	%						100	100	80-116		20				

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QUALITY CONTROL DATA

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

QC Batch:	MSV/17024	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV
Associated Lab Samples:	5027523001, 5027523002, 5027523003		

METHOD BLANK: 315500 Matrix: Water

Associated Lab Samples: 5027523001, 5027523002, 5027523003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	5.0	06/26/09 13:05	
1,1-Dichloroethene	ug/L	ND	5.0	06/26/09 13:05	
Benzene	ug/L	ND	5.0	06/26/09 13:05	
Carbon tetrachloride	ug/L	ND	5.0	06/26/09 13:05	
Chloroform	ug/L	ND	5.0	06/26/09 13:05	
cis-1,2-Dichloroethene	ug/L	ND	5.0	06/26/09 13:05	
Ethylbenzene	ug/L	ND	5.0	06/26/09 13:05	
Methylene chloride	ug/L	11.3	5.0	06/26/09 13:05	B-
Naphthalene	ug/L	ND	5.0	06/26/09 13:05	
Tetrachloroethene	ug/L	ND	5.0	06/26/09 13:05	
Toluene	ug/L	ND	5.0	06/26/09 13:05	
trans-1,2-Dichloroethene	ug/L	ND	5.0	06/26/09 13:05	
Trichloroethene	ug/L	ND	5.0	06/26/09 13:05	
Vinyl chloride	ug/L	ND	2.0	06/26/09 13:05	
Xylene (Total)	ug/L	ND	10.0	06/26/09 13:05	
4-Bromofluorobenzene (S)	%	97	70-126	06/26/09 13:05	
Dibromofluoromethane (S)	%	100	80-123	06/26/09 13:05	
Toluene-d8 (S)	%	93	80-116	06/26/09 13:05	

LABORATORY CONTROL SAMPLE: 315501

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	54.1	108	69-136	
1,1-Dichloroethene	ug/L	50	49.5	99	63-128	
Benzene	ug/L	50	50.6	101	78-127	
Carbon tetrachloride	ug/L	50	50.7	101	62-143	
Chloroform	ug/L	50	49.2	98	74-131	
cis-1,2-Dichloroethene	ug/L	50	50.3	101	74-128	
Ethylbenzene	ug/L	50	50.0	100	81-126	
Methylene chloride	ug/L	50	65.9	132	32-164	
Naphthalene	ug/L	50	48.0	96	61-135	
Tetrachloroethene	ug/L	50	48.5	97	60-119	
Toluene	ug/L	50	48.7	97	75-129	
trans-1,2-Dichloroethene	ug/L	50	53.0	106	71-126	
Trichloroethene	ug/L	50	51.2	102	74-130	
Vinyl chloride	ug/L	50	52.8	106	55-141	
Xylene (Total)	ug/L	150	152	102	76-132	
4-Bromofluorobenzene (S)	%			98	70-126	
Dibromofluoromethane (S)	%			100	80-123	
Toluene-d8 (S)	%			95	80-116	

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QUALITY CONTROL DATA

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Parameter	Units	5027523002		MS		MSD		MS Result	% Rec	MSD Result	% Rec	% Rec Limits	315767	
		Result	Conc.	Spike	Conc.	MS	MSD						RPD	RPD
1,1,1-Trichloroethane	ug/L	ND	50	50	48.3	54.5	97	109	64-143	12	20			
1,1-Dichloroethene	ug/L	ND	50	50	47.8	49.5	96	99	55-140	4	20			
Benzene	ug/L	ND	50	50	50.2	52.9	100	106	63-141	5	20			
Carbon tetrachloride	ug/L	ND	50	50	42.0	49.6	84	99	54-145	16	20			
Chloroform	ug/L	ND	50	50	49.4	52.6	99	105	67-134	6	20			
cis-1,2-Dichloroethene	ug/L	ND	50	50	49.3	53.0	99	106	65-132	7	20			
Ethylbenzene	ug/L	ND	50	50	48.4	52.4	97	105	44-151	8	20			
Methylene chloride	ug/L	ND	50	50	60.7	81.9	112	154	46-154	30	20	R1		
Naphthalene	ug/L	ND	50	50	39.4	47.7	79	95	44-138	19	20			
Tetrachloroethene	ug/L	ND	50	50	45.4	48.3	88	93	25-146	6	20			
Toluene	ug/L	ND	50	50	47.7	51.1	95	102	59-142	7	20			
trans-1,2-Dichloroethene	ug/L	ND	50	50	50.8	64.2	102	128	60-137	23	20	R1		
Trichloroethene	ug/L	ND	50	50	48.5	52.1	97	104	61-137	7	20			
Vinyl chloride	ug/L	ND	50	50	49.3	51.0	99	102	51-144	3	20			
Xylene (Total)	ug/L	ND	150	150	142	156	95	104	44-152	9	20			
4-Bromofluorobenzene (S)	%						99	99	70-126		20			
Dibromofluoromethane (S)	%						100	101	80-123		20			
Toluene-d8 (S)	%						96	96	80-116		20			

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QUALITY CONTROL DATA

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

QC Batch:	MSV/17035	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV
Associated Lab Samples:	5027523006, 5027523007, 5027523012, 5027523013, 5027523014, 5027523015, 5027523016, 5027523018, 5027523019		

METHOD BLANK: 315770 Matrix: Water

Associated Lab Samples: 5027523006, 5027523007, 5027523012, 5027523013, 5027523014, 5027523015, 5027523016, 5027523018, 5027523019

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	5.0	06/27/09 01:12	
1,1-Dichloroethene	ug/L	ND	5.0	06/27/09 01:12	
Benzene	ug/L	ND	5.0	06/27/09 01:12	
Carbon tetrachloride	ug/L	ND	5.0	06/27/09 01:12	
Chloroform	ug/L	ND	5.0	06/27/09 01:12	
cis-1,2-Dichloroethene	ug/L	ND	5.0	06/27/09 01:12	
Ethylbenzene	ug/L	ND	5.0	06/27/09 01:12	
Methylene chloride	ug/L	ND	5.0	06/27/09 01:12	
Naphthalene	ug/L	ND	5.0	06/27/09 01:12	
Tetrachloroethene	ug/L	ND	5.0	06/27/09 01:12	
Toluene	ug/L	ND	5.0	06/27/09 01:12	
trans-1,2-Dichloroethene	ug/L	ND	5.0	06/27/09 01:12	
Trichloroethene	ug/L	ND	5.0	06/27/09 01:12	
Vinyl chloride	ug/L	ND	2.0	06/27/09 01:12	
Xylene (Total)	ug/L	ND	10.0	06/27/09 01:12	
4-Bromofluorobenzene (S)	%	94	70-126	06/27/09 01:12	
Dibromofluoromethane (S)	%	101	80-123	06/27/09 01:12	
Toluene-d8 (S)	%	97	80-116	06/27/09 01:12	

LABORATORY CONTROL SAMPLE: 315771

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	56.1	112	69-136	
1,1-Dichloroethene	ug/L	50	55.8	112	63-128	
Benzene	ug/L	50	53.3	107	78-127	
Carbon tetrachloride	ug/L	50	51.6	103	62-143	
Chloroform	ug/L	50	51.4	103	74-131	
cis-1,2-Dichloroethene	ug/L	50	52.4	105	74-128	
Ethylbenzene	ug/L	50	52.9	106	81-126	
Methylene chloride	ug/L	50	72.5	145	32-164	
Naphthalene	ug/L	50	43.0	86	61-135	
Tetrachloroethene	ug/L	50	49.7	99	60-119	
Toluene	ug/L	50	52.4	105	75-129	
trans-1,2-Dichloroethene	ug/L	50	57.7	115	71-126	
Trichloroethene	ug/L	50	53.0	106	74-130	
Vinyl chloride	ug/L	50	58.8	118	55-141	
Xylene (Total)	ug/L	150	160	107	76-132	
4-Bromofluorobenzene (S)	%			99	70-126	
Dibromofluoromethane (S)	%			99	80-123	
Toluene-d8 (S)	%			98	80-116	

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QUALITY CONTROL DATA

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Parameter	Units	5027523018		MS		MSD		MS Result	% Rec	MSD Result	% Rec	% Rec Limits	Max	
		Result	Conc.	Spike	Conc.	MS	MSD						RPD	RPD
1,1,1-Trichloroethane	ug/L	ND	50	50	52.8	53.0	106	106	64-143	.4	20			
1,1-Dichloroethene	ug/L	ND	50	50	58.1	56.4	116	113	55-140	3	20			
Benzene	ug/L	ND	50	50	55.0	54.0	110	108	63-141	2	20			
Carbon tetrachloride	ug/L	ND	50	50	47.1	48.8	94	98	54-145	4	20			
Chloroform	ug/L	ND	50	50	53.0	52.1	106	104	67-134	2	20			
cis-1,2-Dichloroethene	ug/L	ND	50	50	53.9	49.9	108	100	65-132	8	20			
Ethylbenzene	ug/L	ND	50	50	56.0	55.5	112	111	44-151	.8	20			
Methylene chloride	ug/L	ND	50	50	69.6	69.7	134	134	46-154	.2	20			
Naphthalene	ug/L	ND	50	50	38.1	39.1	76	78	44-138	3	20			
Tetrachloroethene	ug/L	ND	50	50	51.9	51.6	104	103	25-146	.5	20			
Toluene	ug/L	ND	50	50	57.0	56.2	114	112	59-142	1	20			
trans-1,2-Dichloroethene	ug/L	ND	50	50	61.9	59.8	124	120	60-137	3	20			
Trichloroethene	ug/L	ND	50	50	52.9	53.0	106	106	61-137	.3	20			
Vinyl chloride	ug/L	ND	50	50	63.2	60.4	126	121	51-144	5	20			
Xylene (Total)	ug/L	ND	150	150	171	170	114	113	44-152	1	20			
4-Bromofluorobenzene (S)	%						101	101	70-126		20			
Dibromofluoromethane (S)	%						98	99	80-123		20			
Toluene-d8 (S)	%						102	101	80-116		20			

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QUALITY CONTROL DATA

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

QC Batch:	MSV/17062	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV
Associated Lab Samples: 5027523004, 5027523005, 5027523008, 5027523017, 5027523020, 5027523021, 5027523022, 5027523023, 5027523024, 5027523025, 5027523026, 5027523029, 5027523030			

METHOD BLANK: 316161 Matrix: Water

Associated Lab Samples: 5027523004, 5027523005, 5027523008, 5027523017, 5027523020, 5027523021, 5027523022, 5027523023, 5027523024, 5027523025, 5027523026, 5027523029, 5027523030

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	5.0	06/27/09 14:23	
1,1-Dichloroethene	ug/L	ND	5.0	06/27/09 14:23	
Benzene	ug/L	ND	5.0	06/27/09 14:23	
Carbon tetrachloride	ug/L	ND	5.0	06/27/09 14:23	
Chloroform	ug/L	ND	5.0	06/27/09 14:23	
cis-1,2-Dichloroethene	ug/L	ND	5.0	06/27/09 14:23	
Ethylbenzene	ug/L	ND	5.0	06/27/09 14:23	
Methylene chloride	ug/L	7.1	5.0	06/27/09 14:23	B-
Naphthalene	ug/L	ND	5.0	06/27/09 14:23	
Tetrachloroethene	ug/L	ND	5.0	06/27/09 14:23	
Toluene	ug/L	ND	5.0	06/27/09 14:23	
trans-1,2-Dichloroethene	ug/L	ND	5.0	06/27/09 14:23	
Trichloroethene	ug/L	ND	5.0	06/27/09 14:23	
Vinyl chloride	ug/L	ND	2.0	06/27/09 14:23	
Xylene (Total)	ug/L	ND	10.0	06/27/09 14:23	
4-Bromofluorobenzene (S)	%	92	70-126	06/27/09 14:23	
Dibromofluoromethane (S)	%	101	80-123	06/27/09 14:23	
Toluene-d8 (S)	%	97	80-116	06/27/09 14:23	

LABORATORY CONTROL SAMPLE: 316162

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	55.4	111	69-136	
1,1-Dichloroethene	ug/L	50	53.0	106	63-128	
Benzene	ug/L	50	51.2	102	78-127	
Carbon tetrachloride	ug/L	50	52.1	104	62-143	
Chloroform	ug/L	50	48.7	97	74-131	
cis-1,2-Dichloroethene	ug/L	50	50.5	101	74-128	
Ethylbenzene	ug/L	50	52.6	105	81-126	
Methylene chloride	ug/L	50	62.1	124	32-164	
Naphthalene	ug/L	50	40.7	81	61-135	
Tetrachloroethene	ug/L	50	51.4	103	60-119	
Toluene	ug/L	50	51.7	103	75-129	
trans-1,2-Dichloroethene	ug/L	50	69.0	138	71-126 L0	
Trichloroethene	ug/L	50	51.5	103	74-130	
Vinyl chloride	ug/L	50	56.7	113	55-141	
Xylene (Total)	ug/L	150	159	106	76-132	
4-Bromofluorobenzene (S)	%			101	70-126	
Dibromofluoromethane (S)	%			100	80-123	
Toluene-d8 (S)	%			99	80-116	

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QUALITY CONTROL DATA

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Parameter	Units	5027523029		MS		MSD		MS		MSD		% Rec		Max	
		Result	Spike Conc.	Spike	Conc.	MS Result	MSD	MS Result	% Rec	MSD % Rec	% Rec	Limits	RPD	RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	50	50	55.8	53.8	112	108	64-143	4	20				
1,1-Dichloroethene	ug/L	ND	50	50	55.9	52.0	112	104	55-140	7	20				
Benzene	ug/L	ND	50	50	55.9	51.0	112	102	63-141	9	20				
Carbon tetrachloride	ug/L	ND	50	50	51.1	49.5	102	99	54-145	3	20				
Chloroform	ug/L	ND	50	50	53.2	49.7	106	99	67-134	7	20				
cis-1,2-Dichloroethene	ug/L	ND	50	50	55.4	50.8	111	102	65-132	9	20				
Ethylbenzene	ug/L	ND	50	50	58.0	52.5	116	105	44-151	10	20				
Methylene chloride	ug/L	ND	50	50	55.1	50.4	110	101	46-154	9	20				
Naphthalene	ug/L	ND	50	50	46.2	41.9	92	84	44-138	10	20				
Tetrachloroethene	ug/L	ND	50	50	54.0	49.2	108	98	25-146	9	20				
Toluene	ug/L	ND	50	50	58.9	52.4	118	105	59-142	12	20				
trans-1,2-Dichloroethene	ug/L	ND	50	50	60.3	56.0	121	112	60-137	8	20				
Trichloroethene	ug/L	ND	50	50	54.6	50.0	109	100	61-137	9	20				
Vinyl chloride	ug/L	ND	50	50	59.0	54.6	118	109	51-144	8	20				
Xylene (Total)	ug/L	ND	150	150	176	158	118	106	44-152	11	20				
4-Bromofluorobenzene (S)	%							100	99	70-126		20			
Dibromofluoromethane (S)	%								98	98	80-123		20		
Toluene-d8 (S)	%								100	100	80-116		20		

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QUALITY CONTROL DATA

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

QC Batch:	MSV/17063	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV
Associated Lab Samples:	5027523027, 5027523028, 5027523031, 5027523032, 5027523033, 5027523034, 5027523035, 5027523036, 5027523037, 5027523038, 5027523041		

METHOD BLANK: 316165 Matrix: Water

Associated Lab Samples: 5027523027, 5027523028, 5027523031, 5027523032, 5027523033, 5027523034, 5027523035, 5027523036, 5027523037, 5027523038, 5027523041

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	5.0	06/28/09 01:53	
1,1-Dichloroethene	ug/L	ND	5.0	06/28/09 01:53	
Benzene	ug/L	ND	5.0	06/28/09 01:53	
Carbon tetrachloride	ug/L	ND	5.0	06/28/09 01:53	
Chloroform	ug/L	ND	5.0	06/28/09 01:53	
cis-1,2-Dichloroethene	ug/L	ND	5.0	06/28/09 01:53	
Ethylbenzene	ug/L	ND	5.0	06/28/09 01:53	
Methylene chloride	ug/L	ND	5.0	06/28/09 01:53	
Naphthalene	ug/L	ND	5.0	06/28/09 01:53	
Tetrachloroethene	ug/L	ND	5.0	06/28/09 01:53	
Toluene	ug/L	ND	5.0	06/28/09 01:53	
trans-1,2-Dichloroethene	ug/L	ND	5.0	06/28/09 01:53	
Trichloroethene	ug/L	ND	5.0	06/28/09 01:53	
Vinyl chloride	ug/L	ND	2.0	06/28/09 01:53	
Xylene (Total)	ug/L	ND	10.0	06/28/09 01:53	
4-Bromofluorobenzene (S)	%	91	70-126	06/28/09 01:53	
Dibromofluoromethane (S)	%	99	80-123	06/28/09 01:53	
Toluene-d8 (S)	%	97	80-116	06/28/09 01:53	

LABORATORY CONTROL SAMPLE: 316166

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	49.5	99	69-136	
1,1-Dichloroethene	ug/L	50	47.5	95	63-128	
Benzene	ug/L	50	47.0	94	78-127	
Carbon tetrachloride	ug/L	50	46.0	92	62-143	
Chloroform	ug/L	50	44.6	89	74-131	
cis-1,2-Dichloroethene	ug/L	50	46.3	93	74-128	
Ethylbenzene	ug/L	50	47.6	95	81-126	
Methylene chloride	ug/L	50	56.1	112	32-164	
Naphthalene	ug/L	50	36.4	73	61-135	
Tetrachloroethene	ug/L	50	45.7	91	60-119	
Toluene	ug/L	50	47.4	95	75-129	
trans-1,2-Dichloroethene	ug/L	50	51.0	102	71-126	
Trichloroethene	ug/L	50	45.7	91	74-130	
Vinyl chloride	ug/L	50	52.0	104	55-141	
Xylene (Total)	ug/L	150	144	96	76-132	
4-Bromofluorobenzene (S)	%			99	70-126	
Dibromofluoromethane (S)	%			98	80-123	
Toluene-d8 (S)	%			100	80-116	

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QUALITY CONTROL DATA

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

Parameter	Units	5027523037		MS		MSD		MS Result	% Rec	MSD % Rec	% Rec	Max	
		Result	Conc.	Spike	Conc.	MS	MSD					RPD	RPD
1,1,1-Trichloroethane	ug/L	ND	50	50	50.8	59.8	102	120	64-143	16	20		
1,1-Dichloroethene	ug/L	ND	50	50	52.5	60.0	105	120	55-140	13	20		
Benzene	ug/L	ND	50	50	51.1	57.9	102	116	63-141	12	20		
Carbon tetrachloride	ug/L	ND	50	50	46.0	54.8	92	110	54-145	17	20		
Chloroform	ug/L	ND	50	50	50.0	56.3	100	113	67-134	12	20		
cis-1,2-Dichloroethene	ug/L	ND	50	50	50.2	57.3	100	115	65-132	13	20		
Ethylbenzene	ug/L	ND	50	50	51.3	58.4	103	117	44-151	13	20		
Methylene chloride	ug/L	ND	50	50	50.4	57.1	101	114	46-154	13	20		
Naphthalene	ug/L	ND	50	50	36.6	44.8	73	90	44-138	20	20		
Tetrachloroethene	ug/L	ND	50	50	46.9	54.8	94	110	25-146	15	20		
Toluene	ug/L	ND	50	50	52.2	59.6	104	119	59-142	13	20		
trans-1,2-Dichloroethene	ug/L	ND	50	50	55.3	63.1	111	126	60-137	13	20		
Trichloroethene	ug/L	ND	50	50	48.9	56.6	98	113	61-137	15	20		
Vinyl chloride	ug/L	174	50	50	186	202	25	56	51-144	8	20	M0	
Xylene (Total)	ug/L	ND	150	150	156	179	104	119	44-152	14	20		
4-Bromofluorobenzene (S)	%						100	97	70-126		20		
Dibromofluoromethane (S)	%							99	98	80-123		20	
Toluene-d8 (S)	%							100	98	80-116		20	

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QUALITY CONTROL DATA

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

QC Batch:	MSV/17064	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV
Associated Lab Samples:	5027523040		

METHOD BLANK: 316169 Matrix: Water

Associated Lab Samples: 5027523040

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	5.0	06/28/09 13:52	
1,1-Dichloroethene	ug/L	ND	5.0	06/28/09 13:52	
Benzene	ug/L	ND	5.0	06/28/09 13:52	
Carbon tetrachloride	ug/L	ND	5.0	06/28/09 13:52	
Chloroform	ug/L	ND	5.0	06/28/09 13:52	
cis-1,2-Dichloroethene	ug/L	ND	5.0	06/28/09 13:52	
Ethylbenzene	ug/L	ND	5.0	06/28/09 13:52	
Methylene chloride	ug/L	ND	5.0	06/28/09 13:52	
Naphthalene	ug/L	ND	5.0	06/28/09 13:52	
Tetrachloroethene	ug/L	ND	5.0	06/28/09 13:52	
Toluene	ug/L	ND	5.0	06/28/09 13:52	
trans-1,2-Dichloroethene	ug/L	ND	5.0	06/28/09 13:52	
Trichloroethene	ug/L	ND	5.0	06/28/09 13:52	
Vinyl chloride	ug/L	ND	2.0	06/28/09 13:52	
Xylene (Total)	ug/L	ND	10.0	06/28/09 13:52	
4-Bromofluorobenzene (S)	%	89	70-126	06/28/09 13:52	
Dibromofluoromethane (S)	%	99	80-123	06/28/09 13:52	
Toluene-d8 (S)	%	97	80-116	06/28/09 13:52	

LABORATORY CONTROL SAMPLE: 316170

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	54.1	108	69-136	
1,1-Dichloroethene	ug/L	50	53.6	107	63-128	
Benzene	ug/L	50	51.8	104	78-127	
Carbon tetrachloride	ug/L	50	50.9	102	62-143	
Chloroform	ug/L	50	49.9	100	74-131	
cis-1,2-Dichloroethene	ug/L	50	51.1	102	74-128	
Ethylbenzene	ug/L	50	52.2	104	81-126	
Methylene chloride	ug/L	50	62.3	125	32-164	
Naphthalene	ug/L	50	39.1	78	61-135	
Tetrachloroethene	ug/L	50	49.0	98	60-119	
Toluene	ug/L	50	52.5	105	75-129	
trans-1,2-Dichloroethene	ug/L	50	56.6	113	71-126	
Trichloroethene	ug/L	50	51.1	102	74-130	
Vinyl chloride	ug/L	50	56.6	113	55-141	
Xylene (Total)	ug/L	150	156	104	76-132	
4-Bromofluorobenzene (S)	%			98	70-126	
Dibromofluoromethane (S)	%			98	80-123	
Toluene-d8 (S)	%			100	80-116	

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QUALITY CONTROL DATA

Project: Michigan Plaza / M01046

Pace Project No.: 5027523

QC Batch:	MSV/17080	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV
Associated Lab Samples:	5027523039		

METHOD BLANK: 316492 Matrix: Water

Associated Lab Samples: 5027523039

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	5.0	06/29/09 14:14	
1,1-Dichloroethene	ug/L	ND	5.0	06/29/09 14:14	
Benzene	ug/L	ND	5.0	06/29/09 14:14	
Carbon tetrachloride	ug/L	ND	5.0	06/29/09 14:14	
Chloroform	ug/L	ND	5.0	06/29/09 14:14	
cis-1,2-Dichloroethene	ug/L	ND	5.0	06/29/09 14:14	
Ethylbenzene	ug/L	ND	5.0	06/29/09 14:14	
Methylene chloride	ug/L	ND	5.0	06/29/09 14:14	
Naphthalene	ug/L	ND	5.0	06/29/09 14:14	
Tetrachloroethene	ug/L	ND	5.0	06/29/09 14:14	
Toluene	ug/L	ND	5.0	06/29/09 14:14	
trans-1,2-Dichloroethene	ug/L	ND	5.0	06/29/09 14:14	
Trichloroethene	ug/L	ND	5.0	06/29/09 14:14	
Vinyl chloride	ug/L	ND	2.0	06/29/09 14:14	
Xylene (Total)	ug/L	ND	10.0	06/29/09 14:14	
4-Bromofluorobenzene (S)	%	93	70-126	06/29/09 14:14	
Dibromofluoromethane (S)	%	101	80-123	06/29/09 14:14	
Toluene-d8 (S)	%	96	80-116	06/29/09 14:14	

LABORATORY CONTROL SAMPLE: 316493

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	55.7	111	69-136	
1,1-Dichloroethene	ug/L	50	52.5	105	63-128	
Benzene	ug/L	50	55.1	110	78-127	
Carbon tetrachloride	ug/L	50	51.3	103	62-143	
Chloroform	ug/L	50	53.2	106	74-131	
cis-1,2-Dichloroethene	ug/L	50	53.2	106	74-128	
Ethylbenzene	ug/L	50	55.9	112	81-126	
Methylene chloride	ug/L	50	68.5	137	32-164	
Naphthalene	ug/L	50	45.5	91	61-135	
Tetrachloroethene	ug/L	50	55.0	110	60-119	
Toluene	ug/L	50	55.5	111	75-129	
trans-1,2-Dichloroethene	ug/L	50	54.9	110	71-126	
Trichloroethene	ug/L	50	54.5	109	74-130	
Vinyl chloride	ug/L	50	51.3	103	55-141	
Xylene (Total)	ug/L	150	170	113	76-132	
4-Bromofluorobenzene (S)	%			103	70-126	
Dibromofluoromethane (S)	%			98	80-123	
Toluene-d8 (S)	%			98	80-116	

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QUALIFIERS

Project: Michigan Plaza / M01046
Pace Project No.: 5027523

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

ANALYTE QUALIFIERS

1d Due to the high concentration of vinyl chloride a lower dilution could not be analyzed. aa 6/29/09

B- Analyte detected in method blank but was not detected in the associated samples.

D4 Sample was diluted due to the presence of high levels of target analytes.

L0 Analyte recovery in the laboratory control sample (LCS) was outside QC limits.

M0 Matrix spike recovery was outside laboratory control limits.

R1 RPD value was outside control limits.



Client Name: Mundell & Associates
Contact: Leena Lothe
Address: 110 South Downey Avenue
Indianapolis, IN 46219

Page: Page 1 of 7
Lab Proj #: P0906370
Report Date: 06/30/09
Client Proj Name: Michigan Plaza
Client Proj #: M01046

Laboratory Results

Total pages in data package: 10

<u>Lab Sample #</u>	<u>Client Sample ID</u>
P0906370-01	B-1
P0906370-02	B-3
P0906370-03	B-4
P0906370-04	B-5
P0906370-05	B-6
P0906370-06	B-7

Microseeps test results meet all the requirements of the NELAC standards or provide reasons and/or justification if they do not.

Approved By: Debbie Hallo Date: 6.30.09

Project Manager: Debbie Hallo

The analytical results reported here are reliable and usable to the precision expressed in this report. As required by some regulating authorities, a full discussion of the uncertainty in our analytical results can be obtained at our web site or through customer service. Unless otherwise specified, all results are reported on a wet weight basis.

*As a valued client we would appreciate your comments on our service.
Please call customer service at (412)826-5245 or email customerservice@microseeps.com.*

Case Narrative:

Client Name: Mundell & Associates
Contact: Leena Lothe
Address: 110 South Downey Avenue
Indianapolis, IN 46219

Page: Page 2 of 7
Lab Proj #: P0906370
Report Date: 06/30/09
Client Proj Name: Michigan Plaza
Client Proj #: M01046

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>		<u>Sampled Date/Time</u>	<u>Received</u>	
B-1	Vapor	P0906370-01		15 Jun. 09 10:15	24 Jun. 09 11:18	
<u>Analyte(s)</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
RiskAnalysis						
N 1,1,1-Trichloroethane	<0.0050	0.0050	PPMV	AM4.02	6/25/09	mm
N 1,1-Dichloroethane	<0.0200	0.0200	PPMV	AM4.02	6/25/09	mm
N 1,1-Dichloroethene	<0.0100	0.0100	PPMV	AM4.02	6/25/09	mm
N Carbon Tetrachloride	<0.0050	0.0050	PPMV	AM4.02	6/25/09	mm
N Chloroform	<0.0050	0.0050	PPMV	AM4.02	6/25/09	mm
N cis-1,2-Dichloroethene	<0.0200	0.0200	PPMV	AM4.02	6/25/09	mm
N Methylene Chloride	<2.0000	2.0000	PPMV	AM4.02	6/25/09	mm
N Tetrachloroethene	0.4300	0.0100	PPMV	AM4.02	6/25/09	mm
N trans-1,2-Dichloroethene	<0.0100	0.0100	PPMV	AM4.02	6/25/09	mm
N Trichloroethene	<0.0100	0.0100	PPMV	AM4.02	6/25/09	mm
N Vinyl Chloride	<1.0000	1.0000	PPMV	AM4.02	6/25/09	mm



N - NELAC certified analysis

Client Name: Mundell & Associates
Contact: Leena Lothe
Address: 110 South Downey Avenue
Indianapolis, IN 46219

Page: Page 3 of 7
Lab Proj #: P0906370
Report Date: 06/30/09
Client Proj Name: Michigan Plaza
Client Proj #: M01046

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>		<u>Sampled Date/Time</u>	<u>Received</u>	
B-3	Vapor	P0906370-02		15 Jun. 09 10:20	24 Jun. 09 11:18	
<u>Analyte(s)</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
RiskAnalysis						
N 1,1,1-Trichloroethane	<0.0050	0.0050	PPMV	AM4.02	6/25/09	mm
N 1,1-Dichloroethane	<0.0200	0.0200	PPMV	AM4.02	6/25/09	mm
N 1,1-Dichloroethene	<0.0100	0.0100	PPMV	AM4.02	6/25/09	mm
N Carbon Tetrachloride	<0.0050	0.0050	PPMV	AM4.02	6/25/09	mm
N Chloroform	<0.0050	0.0050	PPMV	AM4.02	6/25/09	mm
N cis-1,2-Dichloroethene	<0.0200	0.0200	PPMV	AM4.02	6/25/09	mm
N Methylene Chloride	<2.0000	2.0000	PPMV	AM4.02	6/25/09	mm
N Tetrachloroethene	0.4200	0.0100	PPMV	AM4.02	6/25/09	mm
N trans-1,2-Dichloroethene	<0.0100	0.0100	PPMV	AM4.02	6/25/09	mm
N Trichloroethene	<0.0100	0.0100	PPMV	AM4.02	6/25/09	mm
N Vinyl Chloride	<1.0000	1.0000	PPMV	AM4.02	6/25/09	mm



N - NELAC certified analysis

Client Name: Mundell & Associates
Contact: Leena Lothe
Address: 110 South Downey Avenue
Indianapolis, IN 46219

Page: Page 4 of 7
Lab Proj #: P0906370
Report Date: 06/30/09
Client Proj Name: Michigan Plaza
Client Proj #: M01046

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>		<u>Sampled Date/Time</u>		<u>Received</u>
B-4	Vapor	P0906370-03		15 Jun. 09 10:35		24 Jun. 09 11:18
<u>Analyte(s)</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
Risk Analysis						
N 1,1,1-Trichloroethane	<0.0050	0.0050	PPMV	AM4.02	6/25/09	mm
N 1,1-Dichloroethane	<0.0200	0.0200	PPMV	AM4.02	6/25/09	mm
N 1,1-Dichloroethene	<0.0100	0.0100	PPMV	AM4.02	6/25/09	mm
N Carbon Tetrachloride	<0.0050	0.0050	PPMV	AM4.02	6/25/09	mm
N Chloroform	<0.0050	0.0050	PPMV	AM4.02	6/25/09	mm
N cis-1,2-Dichloroethene	<0.0200	0.0200	PPMV	AM4.02	6/25/09	mm
N Methylene Chloride	<2.0000	2.0000	PPMV	AM4.02	6/25/09	mm
N Tetrachloroethene	0.0200	0.0100	PPMV	AM4.02	6/25/09	mm
N trans-1,2-Dichloroethene	<0.0100	0.0100	PPMV	AM4.02	6/25/09	mm
N Trichloroethene	<0.0100	0.0100	PPMV	AM4.02	6/25/09	mm
N Vinyl Chloride	<1.0000	1.0000	PPMV	AM4.02	6/25/09	mm



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Client Name: Mundell & Associates
Contact: Leena Lothe
Address: 110 South Downey Avenue
Indianapolis, IN 46219

Page: Page 5 of 7
Lab Proj #: P0906370
Report Date: 06/30/09
Client Proj Name: Michigan Plaza
Client Proj #: M01046

Sample Description	Matrix	Lab Sample #		Sampled Date/Time	Received	
B-5	Vapor	P0906370-04		15 Jun. 09 11:05	24 Jun. 09 11:18	
Analyte(s)	Result	PQL	Units	Method #	Analysis Date	By
RiskAnalysis						
N 1,1,1-Trichloroethane	<0.0050	0.0050	PPMV	AM4.02	6/25/09	mm
N 1,1-Dichloroethane	<0.0200	0.0200	PPMV	AM4.02	6/25/09	mm
N 1,1-Dichloroethene	<0.0100	0.0100	PPMV	AM4.02	6/25/09	mm
N Carbon Tetrachloride	<0.0050	0.0050	PPMV	AM4.02	6/25/09	mm
N Chloroform	<0.0050	0.0050	PPMV	AM4.02	6/25/09	mm
N cis-1,2-Dichloroethene	<0.0200	0.0200	PPMV	AM4.02	6/25/09	mm
N Methylene Chloride	<2.0000	2.0000	PPMV	AM4.02	6/25/09	mm
N Tetrachloroethene	0.0580	0.0100	PPMV	AM4.02	6/25/09	mm
N trans-1,2-Dichloroethene	<0.0100	0.0100	PPMV	AM4.02	6/25/09	mm
N Trichloroethene	<0.0100	0.0100	PPMV	AM4.02	6/25/09	mm
N Vinyl Chloride	<1.0000	1.0000	PPMV	AM4.02	6/25/09	mm



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Client Name: Mundell & Associates
Contact: Leena Lothe
Address: 110 South Downey Avenue
Indianapolis, IN 46219

Page: Page 6 of 7
Lab Proj #: P0906370
Report Date: 06/30/09
Client Proj Name: Michigan Plaza
Client Proj #: M01046

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>		<u>Sampled Date/Time</u>	<u>Received</u>	
B-6	Vapor	P0906370-05		15 Jun. 09 11:10	24 Jun. 09 11:18	
<u>Analyte(s)</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
<u>Risk Analysis</u>						
N 1,1,1-Trichloroethane	<0.0050	0.0050	PPMV	AM4.02	6/25/09	mm
N 1,1-Dichloroethane	<0.0200	0.0200	PPMV	AM4.02	6/25/09	mm
N 1,1-Dichloroethene	<0.0100	0.0100	PPMV	AM4.02	6/25/09	mm
N Carbon Tetrachloride	<0.0050	0.0050	PPMV	AM4.02	6/25/09	mm
N Chloroform	<0.0050	0.0050	PPMV	AM4.02	6/25/09	mm
N cis-1,2-Dichloroethene	<0.0200	0.0200	PPMV	AM4.02	6/25/09	mm
N Methylene Chloride	<2.0000	2.0000	PPMV	AM4.02	6/25/09	mm
N Tetrachloroethene	0.0840	0.0100	PPMV	AM4.02	6/25/09	mm
N trans-1,2-Dichloroethene	<0.0100	0.0100	PPMV	AM4.02	6/25/09	mm
N Trichloroethene	<0.0100	0.0100	PPMV	AM4.02	6/25/09	mm
N Vinyl Chloride	<1.0000	1.0000	PPMV	AM4.02	6/25/09	mm



N - NELAC certified analysis

Client Name: Mundell & Associates
Contact: Leena Lothe
Address: 110 South Downey Avenue
Indianapolis, IN 46219

Page: Page 7 of 7
Lab Proj #: P0906370
Report Date: 06/30/09
Client Proj Name: Michigan Plaza
Client Proj #: M01046

<u>Sample Description</u>	<u>Matrix</u>	<u>Lab Sample #</u>		<u>Sampled Date/Time</u>	<u>Received</u>	
B-7	Vapor	P0906370-06		15 Jun. 09 11:25	24 Jun. 09 11:18	
<u>Analyte(s)</u>	<u>Result</u>	<u>PQL</u>	<u>Units</u>	<u>Method #</u>	<u>Analysis Date</u>	<u>By</u>
Risk Analysis						
N 1,1,1-Trichloroethane	<0.0100	0.0100	PPMV	AM4.02	6/26/09	mm
N 1,1-Dichloroethane	<0.0400	0.0400	PPMV	AM4.02	6/26/09	mm
N 1,1-Dichloroethene	<0.0200	0.0200	PPMV	AM4.02	6/26/09	mm
N Carbon Tetrachloride	<0.0100	0.0100	PPMV	AM4.02	6/26/09	mm
N Chloroform	<0.0100	0.0100	PPMV	AM4.02	6/26/09	mm
N cis-1,2-Dichloroethene	<0.0400	0.0400	PPMV	AM4.02	6/26/09	mm
N Methylene Chloride	<4.0000	4.0000	PPMV	AM4.02	6/26/09	mm
N Tetrachloroethene	<0.0200	0.0200	PPMV	AM4.02	6/26/09	mm
N trans-1,2-Dichloroethene	<0.0200	0.0200	PPMV	AM4.02	6/26/09	mm
N Trichloroethene	<0.0200	0.0200	PPMV	AM4.02	6/26/09	mm
N Vinyl Chloride	<2.0000	2.0000	PPMV	AM4.02	6/26/09	mm



N - NELAC certified analysis



Microseeps
Lab. Proj. #

Microseeps
Lab. Proj. # P901370

CHAIN - OF - CUSTODY RECORD

Phone: (412) 826-5245

Microseeps, Inc. - 220 William Pitt Way - Pittsburgh, PA 15236

Fax No.: (412) 826-3433

Company: Minneapolis

Co. Address : 110 S. Downey Avenue, Indy

Phone #: 317-630-9060 Fax #: 317-630-4621

Proj. Manager: Leena Lothe

Proj. Name/Number: KU-10000000000000000000

L'assassinat d'un préfet dans l'Indochine

Relinquished by : <i>W. H. Moore</i>	Company : <i>Mundell</i>	Date : <i>6/22/09</i>	Time : <i>10:35A.</i>	Received by : <i>(Signature)</i>	Company : <i>(Signature)</i>	Date : <i>6/22</i>	Time : <i>10:40A.</i>
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :

NON-CONFORMANCE FORM

Microseeps Project Number: P0906370-06A+A+BDate: 06/24/09Time of Receipt: 1400Receiver: R CW WilliamsClient: MUNDELL

REASON FOR NON-CONFORMANCE:

Both vials only have about 0.5 PSI
of pressure. The SOP requires
greater than 3 PSI

ACTION TAKEN:

Client name: Leena SotheDate: 6/24

Time: _____

Email to LeenaOK to proceed per attached emailCustomer Service Initials: OKDate: 6/24

Debbie Hallo

From: Leena Lothe [llothe@mundellassociates.com]
Sent: Wednesday, June 24, 2009 3:06 PM
To: Debbie Hallo
Subject: RE: Michigan Plaza samples

Sounds fine Debbie. Thanks for checking.

From: Debbie Hallo [<mailto:dhallo@microseeps.com>]

Sent: Wednesday, June 24, 2009 2:35 PM

To: Leena Lothe

Subject: Michigan Plaza samples

Hi Leena

We rec'd 6 samples today from Michigan Plaza. The last sample on the coc,B-7, did not have the proper amount of sample in the vials. They should be >3PSI and both vials were about 0.5 PSI. We can analyze the sample but we have to do a dilution of sorts. It will raise your reporting limits by 2X. Please advise if we should proceed.

Debbie Hallo

Microseeps, Inc

220 William Pitt Way

Pittsburgh, PA 15238

Phone 412 826 5245

Fax 412 826 3433

www.microseeps.com

Check out our on-line bottle order form at www.microseeps.com

APPENDIX B

**DEDICATED BLADDER PUMP
INSTALLATION:
PHOTOGRAPHIC DOCUMENTATION**



1) Bladder pumps, caps, and cables ready to be installed



2) Bladder pumps, caps, and cables



3) Getting the equipment ready for installation



4) Bladder pumps to be installed



5) Bladder pumps

APPENDIX C

DEDICATED BLADDER PUMP INSTALLATION: SPECIFICATIONS

Bladder Pumps, Groundwater Sampling

geotech

Geotech Bladder Pumps

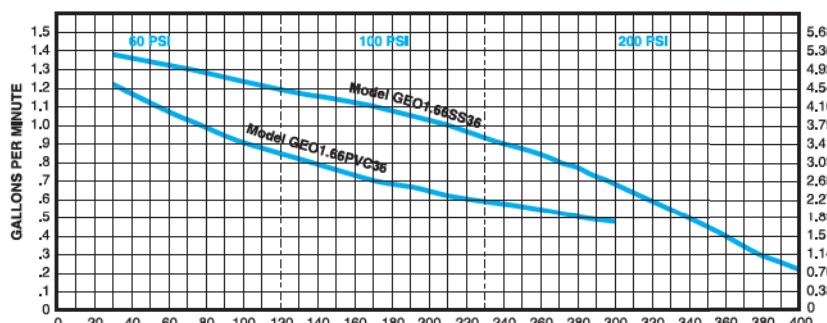
Together with the USGS, Geotech designed the original bladder pump for groundwater quality and pollution monitoring. They can pump to the surface from as deep as 1000 feet with minimal agitation for the best representative samples.

FEATURES

- True low flow capability for less agitation
- Proprietary resin grade virgin PTFE bladder for long life
- Constructed of #316 SS for durability
- Economical PVC models are available
- Dedicated or portable turnkey systems
- Designed for wells as small as .75"
- Optional screened intake extends bladder life
- Optional Drop-Tube assembly available for sampling from greater depths
- Limited lifetime warranty on dedicated stainless steel systems

BLADDER PUMP MODELS

- A. GEO1.66PVC36
Durable PVC construction for a great value in a high volume pump. For 2" wells or larger.
- B. GEO1.66PVC18
The same as above but for less pump volume requirements.
- C. GEO1.66SS36
Made from SS for maximum durability. Highest volume rate for a low flow pump. For 2" wells or larger.
- D. GEO1.66SS18
The same as above but for less pump volume requirements.
- E. GEO.85SS24
Made from high-grade SS for maximum durability. Extra slim design fits .75" wells yet provides excellent performance for its size.
- F. GEO.675SS
Our smallest bladder pump, fits in any well. Made with the same polished stainless steel as our other top-of-the-line pumps



Geotech Bladder Pump Performance Curves

CALL GEOTECH TODAY (800) 833-7958

Geotech Environmental Equipment, Inc.
2650 East 40th Avenue • Denver, Colorado 80205
(303) 320-4764 • (800) 833-7958 • FAX (303) 322-7242
email: sales@geotechenv.com website: www.geotechenv.com

Bladder Pumps, Groundwater Sampling

geotech

Geotech Bladder Pumps

SPECIFICATIONS						
	GEO1.66SS36	GEO1.66SS18	GEO1.66PVC36	GEO1.66PVC18	GEO.85SS24	GEO.675SS18
Pump Housing	316 stainless steel	316 stainless steel	PVC	PVC	316 stainless steel	316 stainless steel
Pump Ends	Virgin PTFE	Virgin PTFE	PVC	PVC	Virgin PTFE	316 stainless steel
O.D.	1.66"/4.2 cm	1.66"/4.2 cm	1.66"/4.2 cm	1.66"/4.2 cm	.850"/2.2 cm	.675"/1.71 cm
Length w/Screen	38"/96.5 cm	20"/51 cm	36"/91.4 cm	22"/55.9 cm	25"/63.5 cm	18"/45.72 cm
Weight	5 lbs./1.9 Kg	2.5 lbs./0.93 Kg	3.6 lbs./1.3 Kg	1.8 lbs./.67 Kg	1.6 lbs./.60 Kg	.83 lbs./.38 kg
Volume/Cycle	21.1 oz./625 ml	10.5 oz./313 ml	13.8 oz./408 ml	6.9 oz./204 ml	2.1 oz./59.6 ml	1.35 oz./38.4 ml
Max. Flowrate	1.25 gpm/ 4.7 lpm	65 gpm/ 2.4 lpm	97 gpm/ 3.7 lpm	53 gpm/ 2.0 lpm	.10 gpm/.36 lpm	.05 gpm/.19 lpm
Minimum Well I.D.	2"/50 mm	2"/50 mm	2"/50 mm	2"/50 mm	1.00"/2.5 mm	.75"/1.9 mm
Maximum Depth	1000'/305 m	1000'/305 m	250'/76.25 m	250'/76.25 m	250'/76.25 m	250'/76.25 m



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email: sales@geotechenv.com website: www.geotechenv.com

**SAMPLING TUBING, WELLCAPS & ACCESSORIES****Tubing for Groundwater Sampling**

Innovative, problem-solving tubing in the widest range of materials and sizes.

[Overview](#) [How it Works](#) [Specifications](#)

Tubing Specifications



Model No.	Material	Air Supply O.D.	Discharge O.D.	Maximum Pressure	Maximum Depth	Min. Bend Radius
P5000	Polyethylene	1/4 in. (6 mm)	3/8 in. (9 mm)	300 psi (20.7 bar)	600 ft. (183 m)	1.25 in. (3 cm)
PT5000	Teflon-lined PE	1/4 in. (6 mm)	3/8 in. (9 mm)	300 psi (20.7 bar)	600 ft. (183 m)	1.25 in. (3 cm)
T5010	Teflon	1/4 in. (6 mm)	3/8 in. (9 mm)	300 psi (20.7 bar)	600 ft. (183 m)	2.5 in. (6 cm)
P5100	Polyethylene	1/4 in. (6 mm)	1/2 in. (13 mm)	200 psi (13.8 bar)	400 ft. (122 m)	2.5 in. (6 cm)
PT5100	Teflon-lined PE	1/4 in. (6 mm)	1/2 in. (13 mm)	200 psi (13.8 bar)	400 ft. (122 m)	2.5 in. (6 cm)
T5110	Teflon	1/4 in. (6 mm)	1/2 in. (13 mm)	240 psi (16.6 bar)	500 ft. (153 m)	3.0 in. (7.5 cm)
P5200	Polyethylene	1/4 in. (6 mm)	1/4 in. (6 mm)	300 psi (20.7 bar)	600 ft. (183 m)	1.0 in. (2.5 cm)
PT5200	Teflon-lined PE	1/4 in. (6 mm)	1/4 in. (6 mm)	300 psi (20.7 bar)	600 ft. (183 m)	1.0 in. (2.5 cm)
T5200	Teflon	1/4 in. (6 mm)	1/4 in. (6 mm)	300 psi (20.7 bar)	600 ft. (183 m)	1.0 in. (2.5 cm)
DW5000	Teflon	5/16 in. (8 mm)	3/8 in. (9 mm)	500 psi (34.5 bar)	1,000 ft. (305 m)	2.5 in. (6 cm)

Tubing I.D. is as follows: 1/4 in. (6 mm) O.D. = 0.17 in. (4.3 mm) I.D.; 3/8 in. (9 mm) O.D. = 0.25 in. (6 mm) I.D.; 1/2 in. (13 mm) O.D. = 0.375 in. (9 mm) I.D.

[See the Complete Sampling Catalog 2.45 Mb](#)[\[Back \]](#)

MicroPurge® Low-Flow Sampling Equipment Catalog

*The most complete selection of pumps, controls,
and accessories for groundwater sampling –
from the Low-Flow Specialists*



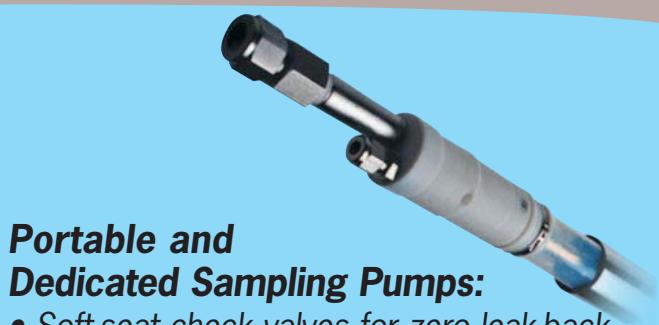
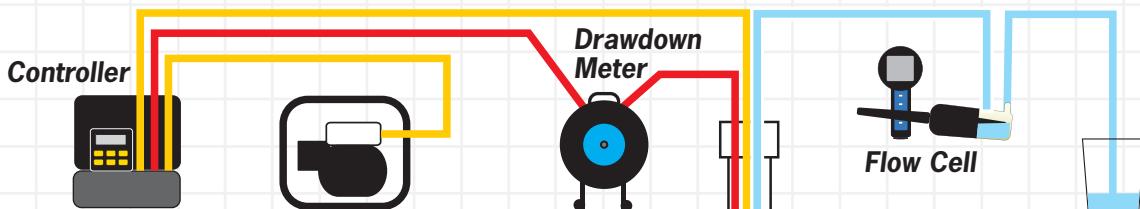
Environmental Systems

Featuring Well Wizard® and
SamplePro® Pumps



Introduction

Low-flow sampling reduces purge volumes, provides less turbid samples and improves precision.



Portable and Dedicated Sampling Pumps:

- Soft-seat check valves for zero leak-back.
- Independently lab-certified clean — 100% traceable.
- Electropolishing of all stainless steel pump parts for maximum purity and corrosion control.
- Bonded, high pullout strength tubing in a range of materials.
- Long-life bladders and standard 10-year pump warranty.
- Deep-well pumps for sampling to 1,000 feet or more.

The Controller

Easy one-touch flow rate control for low-flow sampling – simpler than old-style cycle timers.



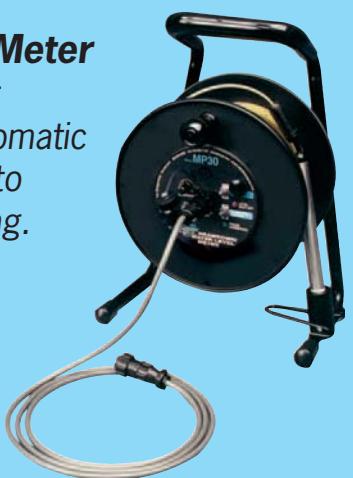
The Flow Cell

Exclusive PurgeScan™ software automatically indicates purge stabilization.



The Drawdown Meter

Patented controller connection for automatic drawdown control to prevent over-purging.





Low-flow rate purging and sampling provides numerous benefits that make it the method of choice for existing and new groundwater monitoring projects. MicroPurge® low-flow sampling systems deliver all the advantages a project manager needs.

Bladder pumps are proven superior

Bladder pumps have been proven superior by the overwhelming majority of independent studies for the broadest range of groundwater quality parameters. They also have the longest warranties, so when you select a bladder pump you are selecting an enduring sampling device and method. Bladder pump advantages include:

- No suction or high speed impellers to outgas volatile compounds
- No churning action, like with bailers and inertial lift samplers, that disturbs the well and increases sample turbidity
- No contact of the drive air with the sample

Low-Flow Sampling

The science of groundwater sampling has advanced significantly in the past decade. Traditional approaches such as bailing, well-volume purging and high rate pumping have been replaced with a methodology that reduces disturbances to the well and aquifer. This proven approach, low-flow rate purging and sampling, provides numerous benefits that make it the method of choice for existing and new groundwater monitoring projects. MicroPurge® low-flow sampling systems deliver all the advantages a project manager needs:

- Low-flow samples are flow-weighted average of the entire well screen, providing a consistent picture of the subsurface conditions around the well
- More accurate and precise samples that yield consistent, reliable monitoring data
- Lower sample turbidity provides a better picture of the true contaminant level and can eliminate the need to filter samples
- Greatly reduced purge volume and the associated expense of containment, handling, and disposal
- Superior cost control over the life of the monitoring program

Dedicated and Portable Pumps Series

Dedicated pumps such as QED's leading Well Wizard bladder pumps provide the maximum benefits of faster, easier field operations and avoiding cross-contamination of wells or samples. The dedicated pump and tubing remain in the well, so equipment insertion & removal and decontamination between wells are eliminated. For short term projects or any situation in which dedicated pumps are not an option, special Sample Pro® portable bladder pumps are available with quick, no-tools disassembly and disposable bladders.

Bladder Pump Info

How a Bladder Pump Works

Pneumatic bladder pumps operate with a unique, gentle action ideal for low-flow sampling. Timed ON/OFF cycles of compressed air alternately squeeze the flexible bladder to displace water out of the pump, and release it to allow the pump to refill by submergence, without creating any disturbance that could affect sample chemistry. Bladder pumps run easily at low rates for extended times, without the problems of other devices.

Why Bladder Pumps are Superior to Other Sampling Devices

Bladder pumps are simple in their fundamental design, which makes them desirable groundwater sampling pumps. Bladder pumps produce samples with minimal alteration, providing greater accuracy and precision than devices such as bailers and electric pumps. With only three moving parts, a flexible bladder and two check valves, bladder pumps are inherently more reliable than electric pumps, air-power piston pumps, and other devices with numerous moving parts, close tolerances and high-speed motors.

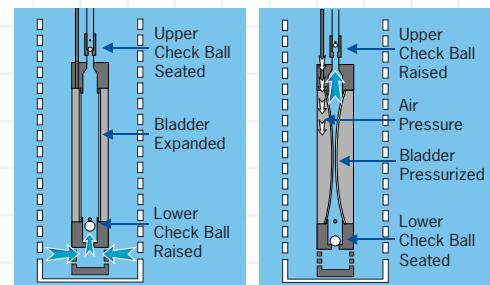
This combination of sampling accuracy and reliability is unmatched by other sampling devices.

What does it take to make a superior dedicated bladder pump? The answer: ongoing attention to engineering detail based on many years of wide-ranging field experience. This attention to detail focuses on 4 four critical areas:

- Long bladder life
- Reliable, leak tight check valves
- Consistent prevention of air and water leaks
- Purity and durability of materials of construction

Each pump is cleaned and laboratory-certified to be free of volatile organic compounds, acid extractable and base neutral contaminants. Your system is pre-assembled, with tubing cut to length, ready to install. If desired, installation by OSHA-certified field technicians is available. QED customer support backs you with unmatched expertise and service, including trained local representatives, 24-hour toll-free hotline and next-day loaners or service turnaround when needed. More MicroPurge dedicated sampling systems and pumps have been chosen since 1982 than all other manufacturers' equipment combined. To find out why, call QED today for a Low-Flow Data Sheet and site-specific cost analysis.

QED's attention to detail doesn't stop there. QED uses tubing/fitting sets engineered and quality controlled for high pullout strength so you don't lose a pump downwell; inlet screens to prevent solids from damaging the bladder or hanging up check valves and long enough to provide clear inlet flow even if it rests on the bottom; standard low-clearance wellhead caps that fit even when the well closure installation is tight; and special packaging to keep the equipment clean and help make the installation go smoothly. QED's bladder pumps build in all these details and more. Our engineers have never stopped learning how to make QED bladder pumps better!



Sampling Equipment Catalog

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Dedicated Sampling Pumps

WELL WIZARD®



Well Wizard® Bladder Pumps: The Original, Low-Flow Sampling Standard

The original, most complete low-flow pump selection

MicroPurge® system pumps come in an unsurpassed range of sizes, materials and capabilities, including models for deep wells, narrow or obstructed casings, and small-volume pumps for low-yield wells. Together with MicroPurge controllers, flow cells and accessories, they create the most reliable, cost-effective low-flow system available.

Field proven pump designs and exclusive, high performance PTFE bladder formulation offer the reliability critical to long-term monitoring. QED was first in the industry with a standard 10-year sampling pump warranty.

Unmatched regulatory and user acceptance

Bladder pumps, EPA-accepted for low-flow sampling, have been shown to deliver superior sample accuracy and precision in dozens of independent studies. Nearly 80,000 Well Wizard® bladder pumps are in use — more than all other brands and types of dedicated groundwater samplers combined.

Well Wizard® Bladder Pump Advantages

- run reliably even at low rates (100 ml/min or less) over a wide range of conditions;
 - operate gently without increasing turbidity or altering samples;
 - deliver reliable performance for many years without needing frequent repairs or maintenance.
1. EPA-accepted low-flow sampling accuracy.
 2. Models for every well — low yield, short water column, depths over 1,000 feet, casing ID down to 1.25".
 3. Proven reliability since 1982, with the industry's first standard 10-year warranty.
 4. Exclusive PTFE bladder formulation rated for years more flex life than other bladder materials.

Sampling Equipment Catalog

Dedicated Sampling Pumps

Specifications

Model No.	Pump Materials	Length	Diameter	Fitting Material	Tubing* OD Size	Volume	Max Lift
T1100M	Teflon®	3.3 ft. (1.0 m)	1.66 in. (4.2 cm)	Teflon®	1/4 & 3/8 in. (6 & 9 mm)	395 mL	250 ft. (75 m)
P1101M	PVC	3.4 ft. (1.04 m)	1.66 in. (4.2 cm)	Polypropylene	1/4 & 3/8 in. (6 & 9 mm)	395 mL	300 ft. (90 m)
P1101HM	PVC	3.3 ft. (1.0 m)	1.66 in. (4.2 cm)	Stainless Steel	1/4 & 3/8 in. (6 & 9 mm)	395 mL	600 ft. (180 m)
ST1101PM	316 Stainless Steel	3.4 ft. (1.04 m)	1.66 in. (4.2 cm)	Stainless Steel	1/4 & 3/8 in. (6 & 9 mm)	395 mL	1,000 ft. (305 m)
T1200M	316 S.S. and Teflon®	3.4 ft. (1.04 m)	1.50 in. (3.8 cm)	Stainless Steel	1/4 & 3/8 in. (6 & 9 mm)	495 mL	300 ft. (90 m)
T1250	316 Stainless Steel	1.25 ft. (0.38 m)	1.50 in. (3.8 cm)	Stainless Steel	1/4 & 1/4 in. (6 & 6 mm)	100 mL	300 ft. (90 m)
P1150	PVC, Teflon®	1.63 ft. (0.5 m)	1.66 in. (4.2 cm)	Polypropylene	1/4 & 1/4 in. (6 & 6 mm)	130 mL	300 ft. (90 m)
T1300	316 S.S. and Teflon®	3.8 ft. (1.16 m)	1.00 in. (2.5 cm)	Stainless Steel	1/4 & 3/8 in. (6 & 9 mm)	220 mL	200 ft. (90 m)

* To choose 1/2 in. OD (13 mm) rather than 3/8 in. (9 mm) discharge tube option, delete suffix M from pump model number.

Intake Screen Specifications

Model No.	Material	Screen Size	Fits Pump Model(s)
35200	Stainless Steel	.010 in. (0.25 mm) mesh	T1200M, T1250
37789	PVC	.010 in. (0.25 mm) slot	P1101M, P1101HM
37727	PVC	.010 in. (0.25 mm) slot	P1250 (also P1101M, P1101HM)
37733	Teflon®	.010 in. (0.25 mm) slot	T1100

Note: Pump models ST1101P, T1300 include intake screens. Screens are optional on other pump models, but are required for full 10-year warranty coverage.

Added System Benefits

Well Wizard® pumps will provide the most precise low-flow purging and sampling when operated by a MicroPurge® Model MP10 Controller, with purge water monitoring via the MicroPurge MP20 Flow Cell.

Materials Specifications

Stainless Steel	Type 316 electropolished
PVC	NSF-grade, extruded specifically for QED with no markings or lubricants.
Teflon® (pumps)	DuPont Teflon® and other premium PTFE resins
Teflon® (bladders)	Q-flex exclusive 200,000 cycle rated PTFE.

Teflon is a registered DuPont trademark.

MicroPurge® Well Caps



MicroPurge® Well Caps

QED provides an extremely wide range of off-the-shelf and custom caps to complete the system to fit your project's needs and allow easy installation. Popular features include:

- high-purity flexible discharge tubes,
- low-clearance fit beneath wellhead closure lids
- below-grade water-tight closures,
- water level measurement ports,
- freeze protection, and
- protective dust caps.

Low Clearance Standard Cap

Low-clearance model includes a dust-tight cover and compact self-storing MicroPurge® discharge tubing. Anodized aluminum caps fit 2" and 4" wells. Models for 1/4" and 3/8" discharge tubing available.

Low Clearance

Model No.	Cap Size	Discharge
C24L	2 in. (5 cm)	1/4 in. (6 mm)
C26L	2 in. (5 cm)	3/8 in. (9 mm)
C44L	4 in. (10 cm)	1/4 in. (6 mm)
C46L	4 in. (10 cm)	3/8 in. (9 mm)

Sealing Cap

Sealing model includes a water-tight cover and compact self-storing MicroPurge® discharge tubing. Anodized aluminum caps fit 2" and 4" wells. Models for 1/4" and 3/8" discharge tubing available. QED offers dozens of custom well caps to work with any unique well casing or schedule. Contact QED with questions.

Sealing

Model No.	Cap Size	Discharge
C24S	2 in. (5 cm)	1/4 in. (6 mm)
C26S	2 in. (5 cm)	3/8 in. (9 mm)
C44S	4 in. (10 cm)	1/4 in. (6 mm)
C46S	4 in. (10 cm)	3/8 in. (9 mm)

Portable Sampling Pumps

Sample Pro®



The First Portable Pump for MicroPurge® Low-Flow Sampling.

The Sample Pro® Portable Pump is the first pump developed specifically to bring the advantages of low-flow sampling to sites requiring portable pumps. The Sample Pro Pump is not only able to deliver consistent low-flow rates, it's easy to disassemble without tools, simple to clean and truly field rugged.

Unlike many other portable pumps, it is cool-running and can be operated by a lightweight backpack controller. There are no high speed rotating parts, no sample or motor heating, no costly motor replacement.

Sample Pro is the only pump available with these 3 innovations for portable low-flow sampling.

- Easy, rapid disassembly — 1/4 turn, no tools
- Pull-off bladder for fast replacement
- Integral push-in tubing connections only from QED, the originators of MicroPurge® low-flow equipment and Well Wizard®, the most widely used sampling pumps.



Sample Pro's reliability and low maintenance make it more economical. Its bayonet-type, twist-open design makes it easy to change the pull-off, disposable bladder in seconds. The compact 14.75" long size fits in a pail for pumping during cleaning. But, Sample Pro's innovations don't stop there. The pump is available with conventional compression fittings for tubing connections, or with a push-in head that's perfect for applications where the tubing is discarded frequently. Sample Pro's rugged, all-stainless construction will stand up to tough portable use. The simple yet effective design avoids the high maintenance expenses and destructive failure modes of other pumps.

The Sample Pro Portable Pump uses a quick-change, one-piece bladder design. Compressed gas squeezes the outside of the bladder to gently force liquid out of the pump; there is no gas contact with the pumped water inside the bladder, making it the perfect choice for VOC sampling.

Squeeze type bladder pumps are supported by years of independent research that shows they provide accurate samples for even the most sensitive parameters. Water enters the pump through the inlet in the upper, head section, then flows down into the bladder. The high inlet helps keep the pump from clogging if it is accidentally lowered into a sediment-filled sump.

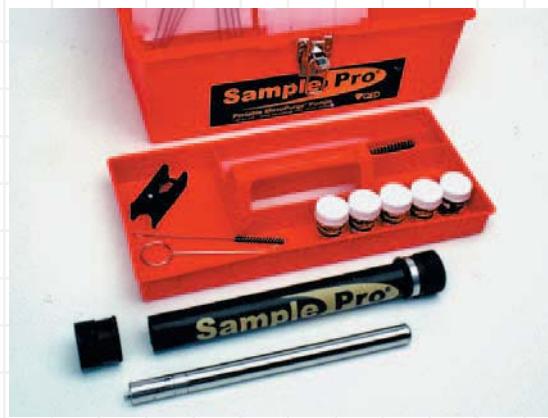
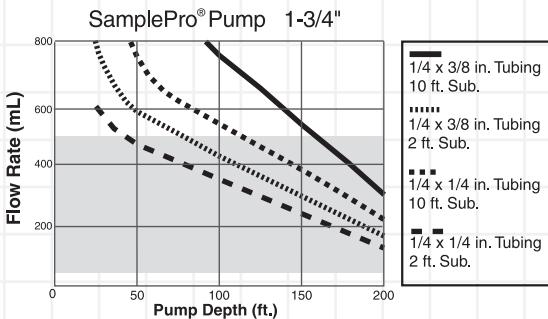
Check valves with stainless steel seats and Teflon® check balls are located at the inlet and outlet. A replaceable inlet screen is provided for wells with high solids levels to help ensure proper sealing of the check valves. The Sample Pro® Pump is shipped in a heavy-duty tube with rubber end caps to help keep the pump clean and protected between uses and is available in two diameters: 1.75" (4.45 cm) to fit in 2" (50 mm) monitoring wells or larger; and 3/4" (1.91 cm) to fit into small diameter monitoring wells and direct-push boreholes.



Sampling Equipment Catalog

Portable Sampling Pumps

The pump is disassembled by a 1/4 turn of the cap and body; no tools are needed. The bladder pulls off for replacement. Both check valves are press-in, pull-out design and use the same size Teflon® check ball. Compression-type and push-in tube fitting kits are available and can be used interchangeably. Both options provide high pull-out strength and a cable eye is included for applications where a support cable is desired.



Specifications

Pump Model	Sample Pro 3/4 in.	Sample Pro 1-3/4 in.
Body Materials	316 Stainless Steel	316 Stainless Steel
Inlet & Discharge Housing	303 Stainless Steel	303 Stainless Steel
Bladder	Polyethylene or Teflon®	Polyethylene or Teflon®
O-rings	Viton®	Viton®
Teflon	is a registered trademark DuPont. Viton is a registered trademark of DuPont Dow Elastomers.	
Dimensions		
Diameter	0.75 in. (19 mm)	1.75 in. (47 mm)
Length	10.75 in. (273 mm) with Push-in Fittings 9.18 in. (233 mm) from Bottom of pump to centerline of inlet	14.75 in. (375 mm) with Compression Fittings 16.5 in. (419 mm) with Compression Fittings 12.1 in. (307 mm) from Bottom of pump to centerline of inlet
Weight	0.5 lbs. (0.23 Kg)	4.25 lbs. (1.93 Kg)
Fittings	Push-in Fitting w/ 316 Stainless Steel Grab Plate	Push-in Fitting w/ 316 Stainless Steel Grab Plate
Air	0.125 in. (3.2 mm) OD	0.25 in. (6.4 mm) OD
Discharge	0.25 in. (6.4 mm) OD	0.25 in. (6.4 mm) or 0.375 in. (9.5 mm) OD
Maximum Lift	200 ft. (61 m)	250 ft. (61 m)
Pump Volume	0.33-0.50 oz (10-15 mL)	3.34 oz (100 mL)

Consultant Kits

3/4" Pump

SP-3/4-PK 3/4" SamplePro Consultant Kit with 1/8"+ 1/4" Push-in Fitting Pump, includes Tool Box, Polyethylene Bladder Kit (10 bladders), O-Ring Kit, Grab Plate Kits (10), Tubing Cutter, Cleaning Brush Kit, Check Ball Kit, 1/8" Air Fitting, Needle Nose Pliers, Tubing Insertion Tool, O-Ring Extractor.

1-3/4" Pump

All 1-3/4" Sample Pro Pump Consultant Kits below include Pump, Connector Kit, Tool Box, Bladder Kit (10 bladders, material listed below), O-Ring Kits (10 sets), Check Ball Kit (5), Inlet Screens (10), Air Fitting, Portable Cap, Tubing Cutter, Cleaning Brush Kit.

MP-SPK-4P pump with push-in connection for 1/4" x 1/4" tubing, polyethylene bladders, 10 SS tubing grab plates.

MP-SPK-6P pump with push-in connection for 3/8" x 1/4" tubing, polyethylene bladders, 10 SS tubing grab plates.

MP-SPK-4P-T pump with push-in connection for 1/4" x 1/4" tubing, Teflon bladders, 10 SS tubing grab plates.

MP-SPK-6P-T pump with push-in connection for 3/8" x 1/4" tubing, Teflon bladders, 10 SS tubing grab plates.

MP-SPK-4C pump with compression nut connection for 1/4" x 1/4" tubing, polyethylene bladders, 5 sets of compression nuts and ferrules.

MP-SPK-6C pump with compression nut connection for 3/8" x 1/4" tubing, polyethylene bladders, 5 sets of compression nuts and ferrules.

MP-SPK-4C-T pump with compression nut connection for 1/4" x 1/4" tubing, Teflon bladders, 5 sets of compression nuts and ferrules.

MP-SPK-6C-T pump with compression nut connection for 3/8" x 1/4" tubing, Teflon bladders, 5 sets of compression nuts and ferrules.

Sample Pro® Supplies

Portable Pump Supplies

Disposable Bladder Kits



Pump	Material	Qty.	Order No.
1-3/4"	Polyethylene	10/Pkg.	38360
1-3/4"	Teflon®	10/Pkg.	38380
3/4"	Polyethylene	10/Pkg.	38500

Grab Plates for Push-In type Pumps



Discharge Tube Size	Material	Qty.	Order No.
For 1-3/4" pump			
1/4"	Stainless Steel	10/Pkg.	38364
3/8"	Stainless Steel	10/Pkg.	38365
For 3/4" pump			
1/4"	Stainless Steel	10/Pkg.	38503

Pump O-Ring Replacement Kit



Pump	Material	Qty.	Order No.
1-3/4"	Viton®	10 sets/Pkg.	38362
3/4"	Viton®	10 sets/Pkg.	38502

Tubing



Special tubing sets have been developed to complement the Sample Pro pumps, to provide maximum ease of use and performance in the field.

Bonded twin-tube is a real time saver, but single tubes are also offered. Our tubing is carefully specified, processed, tested and packaged to provide leak tight connections, high pullout strength at connectors to prevent pump loss, and purity. The tubing is delivered in a re-sealable bucket to keep it clean during shipment and in the field after partial use. The 1/4" x 1/4" size uses contrasting colors to help identify which tube is air or water.

Twin tube, 1/4" x 1/4": Disposable tubing for 1-3/4" Sample Pro portable MicroPurge pump. Air tube is grey to allow easy contrast vs. water discharge tube. 250' prepackaged spool of 1/4" OD + 1/4" OD bonded, polyethylene tubing (includes bucket). **DT-TP4B**

Twin tube 1/4" x 1/8": Disposable tubing for 3/4" Sample Pro portable MicroPurge pump. 250' prepackaged spool of 1/4" OD + 1/8" OD skip-bonded, polyethylene tubing (includes bucket). **DT-TP2B**

Twin tube, 3/8" discharge x 1/4" air supply, polyethylene, sold by the foot, no pail. **P5000**

Twin tube, 3/8" discharge x 1/4" air supply, Teflon®-lined polyethylene, sold by the foot, no pail. **PT5000**

Single 1/8" tube: Disposable air supply tubing for 3/4" Sample Pro portable MicroPurge pump. 250' prepackaged spool of 1/8" OD single strand, polyethylene tubing (includes bucket). **DT-SP2B**

Single 1/4" tube: Disposable tubing for Sample Pro portable MicroPurge pump. 250' prepackaged spool of 1/4" OD single strand, polyethylene tubing (includes bucket). **DT-SP4B**

TRSM200 -
Tubing Reel.



Inlet Screens

Pump	Material	Qty.	Order No.
1-3/4"	Stainless Steel	10/Pkg.	38361



Pump Check Balls

Pump	Material	Qty.	Order No.
1-3/4"	Stainless Steel	5/Pkg.	38408
3/4"	Teflon®	10/Pkg.	38504



Compression Fitting Pumps

Discharge Tube Size	Material	Qty.	Order No.
1/4"	Stainless Steel	5 sets	38366
3/8"	Stainless Steel	5 sets	38367

(Each set includes nuts and ferrules for water and air tube connections)

Sampling Equipment Catalog

Dedicated Sample Pump Tubing



Sample Pump Tubing

QED tubing innovations such as Teflon®-lining and bonded twin-tube protect sample integrity while making system installation and operation easier and more economical. Careful development and quality control provide tight tubing diameter tolerances for connections that are leak-tight and have high pull-out strength, something not found in hardware store tubing. All tubing is controlled quality, virgin grade material. Economical Teflon-lined polyethylene tubing is the most frequently used, with Teflon on the inside of the sample tubing, where it's really needed. Other choices include all-Teflon, polyethylene, and polypropylene (for deep-well use). QED also stocks bulk tubing and many other sizes and materials; inquire for details.

QED Tubing Advantages

1. Hassle-free, twin-line bonded tubing, not cable tied or loose.
2. Systems are custom cut, pre-assembled, leak-tested and poly-bagged for easy installation all at no additional cost.
3. Highest quality materials and true continuous lengths.

Twin-line simplicity

Our standard twin-line air supply/discharge tubing has a continuous heat-welded bond to prevent tangles and hangups during pump installation and maintenance, and avoids entanglement with portable water level meters and other equipment.

Tubing assemblies are cut to exact length and pre-assembled to well cap and pump per customer specifications at no extra cost. QED stocks the largest variety of discharge adapters, elbows and couplers.

Model No.	Material	Maximum Pressure	Maximum Depth	Min Bend Radius
Air Supply: 1/4 in. OD (6 mm) Discharge: 3/8 in. OD (9 mm)				
P5000	Polyethylene	300 psi (2,070 kPa)	600 ft. (183 m)	1.25 in. (3 cm)
PT5000	Teflon®-lined PE	300 psi (2,070 kPa)	600 ft. (183 m)	1.25 in. (3 cm)
T5010	Teflon®	275 psi (1,896 kPa)	550 ft. (168 m)	2.5 in. (6 cm)
Air Supply: 1/4 in. OD (6 mm) Discharge: 1/2 in. (13 mm)				
P5100	Polyethylene	200 psi (1,380 kPa)	400 ft. (122 m)	2.5 in. (6 cm)
PT5100	Teflon®-lined PE	200 psi (1,380 kPa)	400 ft. (122 m)	2.5 in. (6 cm)
T5110	Teflon®	200 psi (1,380 kPa)	400 ft. (122 m)	3.0 in. (7.5 cm)
Air Supply: 1/4 in. OD (6 mm) Discharge: 1/4 in. (6 mm)				
P5200	Polyethylene	300 psi (2,070 kPa)	600 ft. (183 m)	1.0 in. (2.5 cm)
PT5200	Teflon®-lined PE	300 psi (2,070 kPa)	600 ft. (183 m)	1.0 in. (2.5 cm)
T5200	Teflon®	275 psi (1,896 kPa)	550 ft. (168 m)	1.0 in. (2.5 cm)
Air Supply: 5/16 in. OD (8 mm) Discharge: 3/8 in. (9 mm)				
DW5000	Teflon®	500 psi (3,447 kPa)	1,000 ft. (305 m)	2.5 in. (6 cm)

Well Development Pumps

When a monitoring well is installed, it is essential to clear soil particles and drilling fines out of the well that interfere with pumping and result in excessive turbidity. The Sample Pro® Well Development Pump is ideal for fast, easy development of 2" and 4" diameter wells. The operator pulls up on the hoses to surge the well with the pump's flexible wipers that sweep the inside of the casing. The surge-block action's reversing flow loosens fines in the well filter pack so they can be pumped out of the well. Two models are available – standard PVC/Stainless Steel, and Stainless/Teflon® for sensitive sampling situations. Wipers to fit both 2" and 4" wells are included. (This pump can also be used for purging).

Specifications

Model No.	Well Dia	Pump Material	Tube Fittings	Wiper Material	Max Lift	Length	Dia	Pump Wt.
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Development Pumps

HR4105D	2 or 4 in.	PVC/303 S.S.	Brass	PVC/Buna-N	200 ft.	65.00 in.	1.66 in.	6.0 lbs.
HR4105SS	2 or 4 in.	304 S.S.	304 S.S.	S.S./Teflon®	200 ft.	65.00 in.	1.66 in.	15.0 lbs.

HR4105SS uses barbed S.S. fittings and clamps with 0.50 in. OD air supply and 0.75 in. OD discharge tubing. All other pumps have brass quick connect air supply and thread-on discharge fittings for use with model P5700 Flexible Hose Bundle.



MicroPurge® Low-Flow Pump Control



MicroPurge® Controls

The MicroPurge® Controller (U.S. Patent Number 6,508,310) revolutionizes low-flow sampling with advanced logic control of flow rate and water level drawdown.

Simple up-down arrow keys increase and decrease flow rate, driving a microprocessor to re-create expert techniques for low-flow adjustment. Then, optimized settings are identified for recall in the next round of sampling.

The MP10 also offers an easy way to prevent excessive monitoring well drawdown during purging, by linking to the optional MP30 Drawdown/Water Level Meter that ceases flow when drawdown settings are exceeded. The lightweight, compact MP10 sets the pace for a new generation of genuine MicroPurge® equipment, first in control and power for low-flow sampling.

Simple, Stable, Repeatable Flow Rate Setting

The MP10 controls the most advanced low-flow sampling system ever made.

You will purge and sample quickly and easily, with precise, steady low-flow pumping rates from one sampling event to the next. Simplified, sealed electronics complete a design that delivers famous QED durability and value. MicroPurge controllers can be connected to the MP30 Drawdown Meter for optional Automatic Drawdown Control, an industry exclusive.

MicroPurge® Controller Advantages

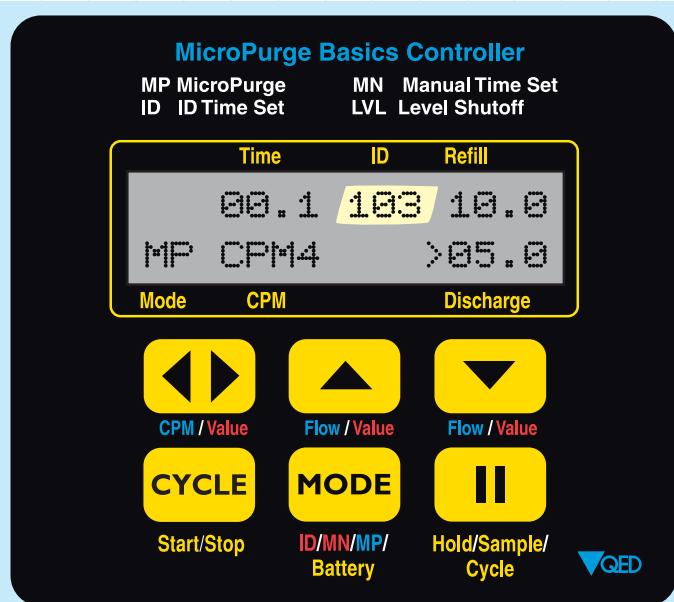
1. Exclusive MicroPurge® control mode uses simple arrow keys to adjust low-flow rates easily and repeatably, using a micro-processor to re-create the flow adjustment strategies used by experienced samplers.
2. Patented connection port allows linking to optional MP30 Drawdown/Water Level Meter, which signals MP10 Controller to enter stand by mode if drawdown limit is exceeded.
3. Multi-mode digital control includes MicroPurge Mode, ID Mode for repeat events, and manual control mode.
4. Weatherproof controls are housed in a rugged, compact (10-3/4" x 9-3/4" x 5") case.
5. Full digital display of all setting and status information.
6. Optional deep well MicroPurge Controller versions allow for effective low-flow sampling from depths to 1000 feet.

System Specifications

Model No.	MP10	MP10H	MP10UH
Dimensions	10-3/4 in. x 9-3/4 in. x 5 in. (27 x 25 x 13 cm)	16 in. x 13 in. x 7 in. (40.6 x 33 x 17.8 cm)	16 in. x 13 in. x 7 in. (40.6 x 33 x 17.8 cm)
Weight	5.5 lbs. (2.5 kg)	19.25 lbs. (8.73 kg)	19.25 lbs. (8.73 kg)
Case Material	Structural resin	Structural resin	Structural resin
Keypad	6 Keys	6 Keys	6 Keys
Display	2 Line, 16 Character / LCD display	2 Line, 16 Character / LCD display	2 Line, 16 Character / LCD display
Power	3 "AA" batteries	3 "AA" batteries	3 "AA" batteries
Battery Life	50,000 Cycles @ 70 °F (21 °C)	50,000 Cycles @ 70 °F (21 °C)	50,000 Cycles @ 70 °F (21 °C)
Max Pressure	120 psi (8,275 kPa)	300 psi	500 psi
Max Pump Depth	250 ft. (76 m)	600 ft.	1000 ft.
Operating Temperature	-20-150 °F (-29-66 °C)	-20-150 °F (-29-66 °C)	-20-150 °F (-29-66 °C)
Connection to MP30 Drawdown Meter	Heavy-duty cable (supplied with MP30)		

Sampling Equipment Catalog

How It Works



Pressing the UP arrow increases pump flow in controlled steps.



The DOWN arrow decreases the flow rate in controlled steps.



The LEFT/ RIGHT arrows adjust Cycles Per Minute (CPM) of your pump.



The ID Number recalls settings and changes with the UP or DOWN arrows.



The CYCLE key Starts and Stops pump cycling.



The MODE key changes modes from default MP (MicroPurge) Mode to ID Mode to MN (User Set) Mode. This key also allows battery check.



Pressing the PAUSE key stops the flow. A second press allows push button controlled vial filling.

Multi-mode digital control

The MP10 gives you three easy-to-use operating modes, to cover every sampling protocol and situation.

- **MicroPurge® (MP) Mode** optimizes control settings to reach the desired pump flow rate; you don't calculate pump cycles, refill or discharge times.
- **ID Mode** recalls previously optimized settings for each well, providing consistent performance every time.
- **User Set (MN) Mode** - provides manual pump control for extreme depths and other special cases.

MicroPurge® Mode Quick Guide

1. Opening cover turns power ON. (Close to turn OFF)
2. Select desired Cycles Per Minute (CPM) with the ▲▼ key .
3. Turn throttle to set depth on gauge to 10-20 feet deeper than the pump location in the well.
4. Press CYCLE to START pumping.
5. When water discharge begins, adjust throttle until a slow, steady flowstream is achieved.
6. Press ▲▼ keys to set the desired purge flow rate.
7. To collect samples, continue purge flow, or use II key to directly control sample flow and pause.

MicroPurge® Portable Control & Power Pack



Compact Controller with On-Board Gas Supply

(U.S. Patent Number 6,508,310)

Remote wells and inaccessible sites are no problem with the unique, new MP15 Control & Power Pack. The convenient carrying case combines a compact compressed gas cylinder with the advanced control of MicroPurge Controllers. With this combination, a complete sampling setup can be carried by a single person, to reach wells where trucks or even compressor carts can't go.

MicroPurge Control & Power Pack Advantages

1. The MP15 weighs just 27 lbs. with a full cylinder in its padded nylon field case. Backpack carrying leaves hands free for other sampling equipment.
2. Also includes capability for optional drawdown control with link to the MP30 Drawdown Meter.
3. Lightweight, silent drive power: 3.5 hours of purging capacity at 75 foot pump depth!

System Specifications

Model No.	MP15
Dimensions	25-1/2 in. x 12-1/2 in. x 10 in. (65 x 32 x 25 cm)
Weight	27 lbs. (12 kg)
Case Material	Polyethylene
Carry Bag	Standard
Back Pack Straps	Optional
Keypad	6 Keys
Display	2 line, 16 character LCD display
Power	3 "AA" batteries
Battery Life	50,000 cycles @ 70 °F (21 °C)
Max Pressure	120 psi (827.5 kPa)
Max Pump Depth	250 ft. (76 m)
Operating Temp.	-20-150°F (-29-66 °C)
Cylinder	5 lbs. (2.3 kg) CO2
Cylinder Life	> 3 hrs (75 ft. pump depth)
MP30 Connection	Heavy-duty cable (supplied with MP30)

MicroPurge® Flow Cell



**Sample With Confidence
Thanks to Visible & Audible
Stabilization Alert with
PurgeScan™ Technology.**

System Specifications

Model No.	MP20
	MP20D (w/ realtime clock/ data download)
	MP20DT (w/ realtime clock/ data download/turbidity)
Dimensions	18.5 in. x 15 in. x 6.5 in. (47 x 38 x 17 cm)
Weight	14 lbs (6.4 kg)
Storage	100 Data Points
Stabilization	PurgeScan™ Technology
Case Material	Structural resin
Keypad	5 Keys

Meter Specifications

Display Size	3.5 in. (9 cm)
Weight	2.1 lbs. (1 kg)
Memory	100 Data Frames
Rating	Waterproof NEMA 6 [IP67]
Power	3 "C" batteries
Battery Life	12 Hours
Temperature	23-122 °F (-5-50 °C)
Cable	6 ft. (1.83 m)

Flow Cell Specifications

Volume	175 mL
Material	Rigid urethane
Fitting Type	Soft-tube "clamp-free"
Fitting Size(s)	Inlet: 1/4 in. ID x 3/8 in. OD Outlet: 3/8 in. ID x 1/2 in. OD
Venting Modes	Horizontal and vertical
Sonde	
Connection	Bayonet-style twist mount

Sonde Specifications

Size	3 in. x 9 in. (8 x 23 cm)
Weight	1.3 lbs. (0.6 kg)

Simple, Economical Purge Monitoring with Automatic Stabilization Alert

The MicroPurge® MP20 Flow Cell (U.S. Patent Number 6,415,659) sets new standards in performance, size and price for purge water quality monitoring. Patented QED-exclusive PurgeScan™ technology signals when stabilization has been achieved for selected water quality parameters, with automatic storage of key data points.

The MP20 meter is designed to simplify calibration and operation in the field. It displays all readings automatically and is lightweight and waterproof.

The compact sonde is a low-profile design with rugged, easy-to-service probes. The flow cell collects and vents gas bubbles effectively, and distributes purge flow evenly for quick response and more accurate readings. The whole package is protected by a 3-year warranty and is backed by service and support from QED, the leader in low-flow sampling.

MicroPurge® Flow Cell Advantages

1. Patented QED-exclusive PurgeScan™ signals when selected purge water quality parameters remain steady over successive readings, at user defined intervals, automatically storing the readings.
2. Transparent, molded flow cell effectively collects and vents bubbles, even in the horizontal position; low internal volume (175 mL), designed flow distribution and stirrer give fast response, even at low-flow purge rates.
3. Three year warranty.
4. Rugged, waterproof case doubles as a measurement and calibration workbench.
5. Waterproof MP20 meter displays all readings automatically: pH, ORP, temperature, conductivity, and DO.
6. The compact sonde attaches with a quick bayonet-type mount to the flow cell, calibration and storage cups.

Typical Sensor Performance Specifications:

	Range	Accuracy	Resolution
Temperature	23-122°F (-5-50 °C)	± 0.36 °F (0.20 °C)	0.018 °F (0.01 °C)
DO	0 to 20 mg/L	± 0.2 mg/L	0.01 mg/L
Specific Cond.	0-100 mS/cm	± 1% of reading ± 1 count	4 Digits
pH	0 to 14 units	± 0.2 units	0.01 units
ORP	-999 to 999 mV	± 20 mV	1 mV
Salinity*	0 to 70 PSS	± 1% of reading ± 1 count	0.01 PSS

*Calculated

PurgeScan™ Specifications:

Parameter Stabilization range criteria:
(Values are user adjustable;
default values shown.)

pH	+/- .2 units
DO	+/- 0.2 mg/L
Conductivity	+/- 0.020 mS/cm
ORP	+/- 20 millivolts
Turbidity	+/- 1 NTU

Stabilization basis: 3 consecutive readings of selected parameters (one or more of above 4) within above limits, at time interval selected, from 1 to 9 minutes. For example, if 2 minutes is selected, then stabilization would be signaled when 3 consecutive 2-minute intervals showed in-range readings at the end of each interval, requiring 6 minutes.

Elapsed time since Purge Scan initiated shows at the bottom of the screen.

Full data sets are stored at time 0, every 5 minutes, and the 3 consecutive readings which satisfy the stabilization criteria.

Sampling Equipment Catalog

MicroPurge® Drawdown Meter



Links to Controller to Prevent Excessive Drawdown During Purgung and Sampling.

MicroPurge® Drawdown/Water Level Meter

Drawdown control is now automatic with QED's low-flow water level meter. The MP30 Drawdown/Water Level Meter (U.S. Patent Number 6,456,201) provides a patented, simpler way to assure drawdown control when connected to the MicroPurge® controllers, and acts as a high quality water level meter. The MP30 can easily switch between both modes. For drawdown control the meter is turned to MicroPurge® mode and the probe is lowered to the point of maximum drawdown. If purging lowers the water level to the selected point, a light and buzzer on the MP30 meter are activated and the controller is signaled to enter a stand by mode until the water level rises again. A separate light indicates probe submergence in both modes.

System Specifications

Model No.	MP30
Dimensions	14 in. X 10.5 in. X 8 in. (37 x 27 x 20 cm)
Weight	7 lbs. (3.2 kg) w/150 ft. tape 9 lbs. (4 kg) w/300 ft. tape
Probe Diameter	5/8 in. OD (1.6 cm)
Probe Length	7.5 in. (19 cm)
Carry Bag	Optional
Connecting Cable	Included
Well Hanger	Included
Reel Brake	Included
Power	9V battery
Battery Life	30-40 hours
Tape Length	150 or 300 ft. (46 or 91 m)
Operating Temperature	-40-185 °F (-40-85 °C)

Well Level Meters



6000 Series Flat Tape Meters

The compact, Stainless Steel and Teflon electronic probe is specially designed to eliminate false readings caused by cascading water. Kink resistant flat tape is permanently marked in 1/50' increments, allowing repeatable depth measurements accurate to 1/100' (Metric models are available) and fits easily in wells, boreholes and stand-pipes.

The probe and cable are lowered from the easy-to-carry free standing reel. Visual and audio alarms indicate contact with static water; depth measurement is taken directly from the tape. A built-in sensitivity control allows adjustment to fit varying water conductivity conditions. The unit operates for up to a year on a single, easily replaceable 9-volt battery.

Decontamination is easy – the meter electronics can be removed by disconnecting a single plug; the whole reel / tape / probe assembly can then be simply washed down or totally immersed for thorough, between-well cleaning.

Accessories

Model No.	Description
36059	Tape guide
36060	Carrying bag

Specifications

Probes	Stainless steel and Teflon (w/strain relief), 5/8 in. diameter x 5 in. long		
Tape	Flat tape, Polyethylene with Kevlar® and Stainless Steel conductors, markings at 1/50 ft. intervals or 1 cm intervals for metric.		
Power	One standard 9V battery		
Reel	Small, free standing with carrying handle and winding knob, brake, probe holder, battery test, ON/OFF switch, sensitivity adjustment (model 6000DSS uses larger reel)		
Depths Options	Model No.	Tape Length	Metric Model No.
6000YSS	100 ft.	M6000-45	45 m
6000MSS	300 ft.	M6000-100	100 m
6000SS	150 ft.	M6000-150	150 m
6000DSS	500 ft.		

Kevlar is a trademark of DuPont.

MicroPurge® Engine/Compressor



Expand Your Sampling Range With This Versatile, Full-Powered Compressed Air Source.

Compact, Portable Pneumatic Power for Purging and Sampling

The rugged MicroPurge® MP40 Compressor eliminates the weight and part count of other oil-less field compressors. The high quality compressor is directly coupled to a smooth-running Honda engine, without the weight and complexity of pulleys, belts, and belt guards.

The MP40 compressor is mounted in a light weight aluminum cage for easy carrying — only 48 pounds total weight!

A new hose reel option attaches to the compressor cage so that wells up to 200 feet away can be reached without having to move the compressor unit. An optional cart with high flotation wheelbarrow tires is also available for mounting the MP40 to reach more distant wells.

System Specifications

Model No.	MP40	
Overall Dimensions	14 in. x 18-1/4 in. x 18-1/2 in. (36 x 46 x 47 cm)	
Weight	45 lbs. (20.5 kg) dry; 48 lbs. (22 kg) filled w/gasoline & oil	
Engine	4.0 HP Honda	
Max Pressure	125 psi (8,620 kPa)	
Max Lift	250 ft. (76 m)	
Output	Through (20 ft. [6 m] air hose) 0 psi (0 kPa) 7.0 cfm (11.9 m³/h) 25 psi (1,725 kPa) 6.1 cfm (10.4 m³/h) 50 psi (3,450 kPa) 5.0 cfm (8.5 m³/h) 75 psi (5,170 kPa) 4.2 cfm (7.1 m³/h) 100 psi (6,895 kPa) 3.5 cfm (6.0 m³/h) 125 psi (8,620 kPa) 2.2 cfm (3.7 m³/h)	(100 ft. [61 m] air hose) 4.8 cfm (8.2 m³/h) 4.4 cfm (7.8 m³/h) 3.8 cfm (6.5 m³/h) 2.4 cfm (4.1 m³/h) 1.7 cfm (2.9 m³/h)
Compatible Controllers	MP10/MP15 or Model 400	
Options		
Cart Kit	MP40-1	
Hose Attachment (200 ft.)	MP40-2	
Propane Conversion Kit	MP40-3	



Model 3020 Electric Compressor

12 Volt DC Light Weight Electric Compressor

The 3020 Compressor is a useful option for low-flow sampling of wells at depths to 100 feet. It runs on a 12 volt DC electrical supply, and can be connected to your vehicle's battery with the supplied cables, or driven by a separate power source. At Just 15x11x6-1/2" and 15 pounds, it offers an extremely convenient, portable pneumatic power choice for many sampling systems.

Electric Compressor Specifications

Model No.	3020
Dimensions	15 in. x 11 in. x 6.5 in. (38 x 28 x 17 cm)
Weight	15 lbs. (7 kg)
Power Supply	12 VDC (battery cable)
Max Pressure	100 psi (6,895 kPa)
Max Lift*	200 ft. (60 m)
Output	0.21 scfm @ 100 psi (0.357 m³/h @ 6,895 kPa)

* Pump flow rates in deeper wells, over 100 ft., will be reduced, especially for pumps with less than 10 ft. liquid submergence.

QuickFilter®



Are You Analyzing Your Samples or Your Sample Filters?

QuickFilter® In-line Sample Filters from QED are the original disposable filter for groundwater sampling. They provide fast field filtration without exposing samples to air or on-site contamination.

QuickFilter capsules attach directly to sample tubing for faster, more efficient sampling, with no setup or decontamination required. QED's Sample Transfer Vessel allows use with any type of sampling device. If you use other filters for metals analysis, you could be risking the accuracy and consistency of your program data. A number of monitoring projects have traced false positives and other analytical errors to the use of "off-brand" filters.

QuickFilter® In-Line Filters: The Original, In-Line Groundwater Filter.

QuickFilter® Advantages

1. High-performance, premium membrane polyethersulfone increases filtration capacity.
2. Capsules heat-sealed, not glued — for purity and performance under pressure.
3. Purity tested to assure metals sample integrity.
4. Full rated surface area guarantees maximum capacity and performance.
5. Always in stock — no back orders; guaranteed best value with the industry's lowest prices.

Specifications

Model No.	Capacity	Area	Filter Material	Pore Size	Max Press.
FF8100	Standard	30 cm ²	Polyethersulfone	0.45 microns	60 psi
FF8101	Standard	30 cm ²	Polypyro	1.00 microns	60 psi
FF8200	High	609 cm ²	2 Polyethersulfone	0.45 microns	60 psi
FF8201	High	770 cm ²	2 Polypyro	1.00 microns	60 psi
FF8205	High	770 cm ²	2 Polypyro	5.00 microns	60 psi

Accessories (ordered separately)

Model No.	Accessory Description
FF8500	Sample transfer vessel with hand pump
35780	Transfer vessel stand
8810	Connector for 1/2 in. OD tubing
8815	Connector for 3/4 in. OD connector
8820	Connector for 1/4 in. OD tubing
8825	Connector for 3/4 in. OD connector

Transfer Vessel Specifications

Model No.	FF8500
Volume	1100 mL
Height	12.63 in.
OD	5.25 in.
Weight	3 lbs.
Cap Material	Polypyro
Reservoir Material	Styrene-Acrylonitrile
Max Pressure	125 psi

Application Data Sheet



P.O. Box 3726 • Ann Arbor, MI • 48106-3726 • USA
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CUSTOMER INFORMATION	
Name: _____	Title: _____
Company: _____	
Address: _____ _____	
Email: _____	
Phone: _____	FAX: _____

SAMPLING DATA DESIGN	
Site: _____	
Location: _____	
Date: _____ Well Purge Volumes Required: _____	<input type="checkbox"/> MicroPurge
Sampling Parameters: _____	
Metals, Low Level Organics, etc.: _____	
Well Bottom to Pump Intake Distance: _____	
Casing Material: _____	
Pump Material Preference: _____	
Pump Tubing Material Preference: _____	

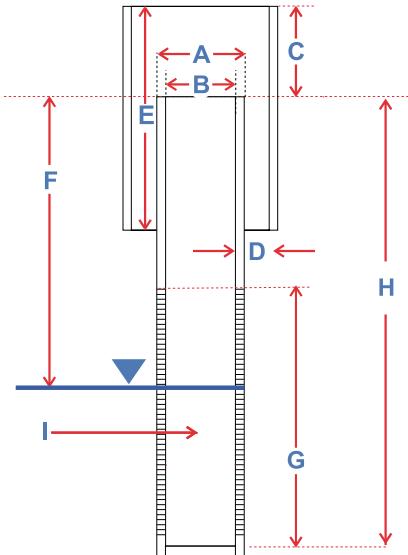
Site Information Form

QED USE ONLY	Today's Date _____
	Quote Number _____
	Sales Order Number _____

SITE INFORMATION	
Site Name: _____	
Project Ref: _____	
Company: _____	
Address: _____ _____	
Phone: _____	FAX: _____

OPTIONAL COST ANALYSIS INFORMATION	
Current Sampling Method: _____	
Frequency of Events (Quarterly, Yearly, etc.): _____	
No. of Persons in Sampling Crew: _____	
Man Hours to Purge, Sample and Clean: _____	
Hourly Labor Rate Assumed: _____	
No. of Cleaning Blanks Per Event: _____	Blank Cost: _____

WELL DATA



STANDARD CASING DIMENSIONS

Sizes	Schedule 40		Schedule 80	
	OD	ID	OD	ID
2	2.375	2.049	2.375	1.913
2-1/2	2.875	2.445	2.875	2.289
3	3.500	3.042	3.500	2.864
3-1/2	4.000	3.520	4.000	3.326
4	4.500	3.998	4.500	3.786
5	5.563	5.017	5.563	4.767
6	6.625	6.031	6.625	5.709

WELL IDENTIFICATION NUMBER							
A.	Well Casing Diameter – OD						
B.	Well Casing Diameter – ID						
C.	Clearance from the Top of Well Casing to the Top of Outer Casing / Vault						
D.	Clearance of Outer Casing / Vault Depth						
E.	Outer Casing / Vault Depth						
F.	Depth to Top of Static Water						
G.	Screen Length						
H.	Depth of Well						
I.	Water Yield (gpm)						

Note: Please note any special characteristic on illustration above

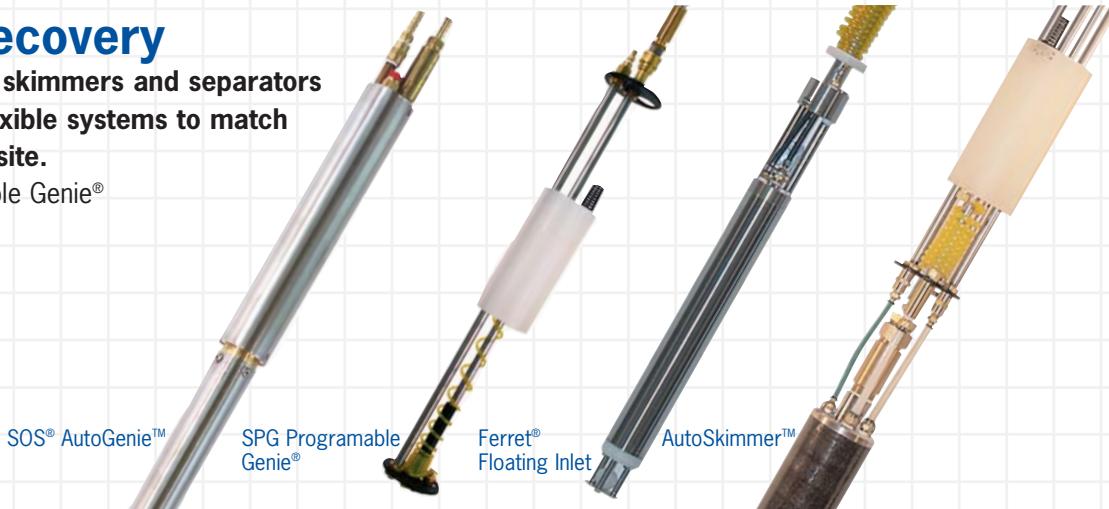
The information provided on this form will be kept confidential by QED.

The World Leader in Air-Powered Pumps

Free Product Recovery

The largest family of in-well skimmers and separators available in the industry. Flexible systems to match the recovery needs of your site.

- AutoGenie™ and Programmable Genie®
- Ferret® In-Well Separator
- AutoSkimmer™



Remediation and Landfill Pumping

QED pumps and systems for landfill leachate and condensate and groundwater remediation have been recognized worldwide for their superior quality and reliability for over two decades. From small municipal facilities to large industrial and military sites, QED can supply the equipment and expertise.

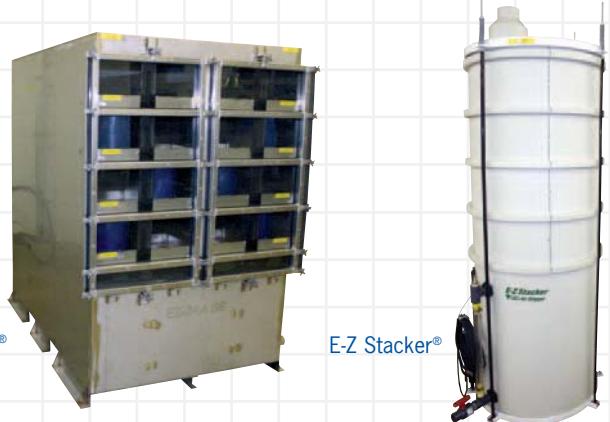
- Air-Powered Automatic Pumps
- Piston Pumps



Air Strippers/VOC Removal

Unique air stripper designs for removing volatile compounds (VOC) from groundwater and industrial process streams.

- Sliding Tray SS Air Strippers
- Stacking Poly Air Strippers



Wireless Data System

Complete data delivery and reporting system that delivers dependable reporting of well level and pump flow data, clearly charted and displayed, and securely archived.





Beyond the Basics...

Since 1981, QED's Well Wizard® and Sample Pro® bladder pumps have been the best choice for producing accurate, precise samples while controlling sampling program costs. The addition of QED's MicroPurge® line of low-flow sampling controls simplifies the low-flow sampling process, further improving sample quality and reducing costs. QED's industry-leading team of technical experts will configure a dedicated or portable sampling system to meet your project needs based on site-specific data and well configurations.

Accessories

- MicroPurge® Flow Cell
- MicroPurge® Drawdown Meter
- Bonded twin-tubing, well caps and discharge adapters
- Electric or Engine-Powered Compressors
- Custom components for special applications

Call us at

800-624-2026

for prompt, expert assistance on your project needs.

Or visit us on the web at

www.qedenv.com

The World Leader in Air-Powered Pumps

For Remediation, Landfills and Groundwater Sampling



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APPENDIX D

AIR MITIGATION SYSTEMS CONCENTRATION DATA AND REMOVAL CONCENTRATION

Table D1

Air Mitigation System - Historical Air Analytical Results
 Michigan Plaza
 Indianapolis, Indiana
 MUNDELL Project No.: M01046

Sample Date	Perchloroethylene (PCE)											
	B-1	B-2	B-3	B-4	B-1	B-2	B-3	B-4	B-1	B-2	B-3	B-4
	(ppmv)				(ppm)				(\mu g/m^3)			
9/21/2006	0.6300	0.7900	0.6700	0.2800	0.0043	0.0054	0.0046	0.0019	4281.48	5368.84	4553.32	1902.88
10/6/2006	0.8800	0.6700	0.9700	0.3100	0.0060	0.0046	0.0066	0.0021	5980.48	4553.32	6592.12	2106.76
10/13/2006	0.6800	0.3600	0.5200	0.2100	0.0046	0.0024	0.0035	0.0014	4621.28	2446.56	3533.92	1427.16
10/20/2006	0.8700	0.5500	0.8900	0.2200	0.0059	0.0037	0.0060	0.0015	5912.52	3737.80	6048.44	1495.12
11/17/2006	0.8100	0.4700	0.7800	0.1500	0.0055	0.0032	0.0053	0.0010	5504.76	3194.12	5300.88	1019.40
12/27/2006	0.7400	0.4700	0.7500	0.1100	0.0050	0.0032	0.0051	0.0007	5029.04	3194.12	5097.00	747.56
3/30/2007	0.5100	0.1800	0.5700	0.0310	0.0035	0.0012	0.0039	0.0002	3465.96	1223.28	3873.72	210.68
6/15/2007	<0.0100	0.3100	0.2100	0.4600	BDL	0.0021	0.0014	0.0031	BDL	2106.76	1427.16	3126.16
10/16/2007	0.3900	0.2400	0.2800	0.0670	0.0027	0.0016	0.0019	0.0005	2650.44	1631.04	1902.88	455.33
12/14/2007	0.5800	0.3400	0.5200	0.1400	0.0039	0.0023	0.0035	0.0010	3941.68	2310.64	3533.92	951.44
3/27/2008	0.5500	NS	0.5600	0.0740	0.0037	NS	0.0038	0.0005	3737.80	NS	3805.76	502.90
4/1/2008	NS	0.3600	NS	NS	NS	0.0024	NS	NS	2446.56	NS	NS	NS
6/2/2008	0.7200	0.56	0.49	0.1	0.0049	0.0038	0.0033	0.0007	4893.12	3805.76	3330.04	679.60
9/12/2008	0.4800	0.47	0.53	0.13	0.0033	0.0032	0.0036	0.0009	3262.08	3194.12	3601.88	883.48
11/26/2008	0.4600	NS	0.36	0.11	0.0031	NS	0.0024	0.0007	3126.16	NS	2446.56	747.56
12/11/2008	0.4600	NS	0.36	0.11	0.0031	NS	0.0024	0.0007	3126.16	NS	2446.56	747.56
4/1/2009	0.45	NS	0.55	<0.0100	0.0031	NS	0.0037	BDL	3058.20	NS	3737.80	BDL
6/15/2009	0.43	NS	0.42	0.02	0.0029	NS	0.0028543	0.0001	2922.28	NS	2854.32	135.92

Table D1
Air Mitigation - Historical Air Analytical Results
Michigan Plaza
Indianapolis, Indiana
MUNDELL Project No.: M01046

Sample Date	Trichloroethylene (TCE)											
	B-1	B-2	B-3	B-4	B-1	B-2	B-3	B-4	B-1	B-2	B-3	B-4
	(ppmv)				(ppm)				(\mu g/m³)			
9/21/2006	0.0240	0.0120	<0.0100	<0.0100	0.0001	0.0001	BDL	BDL	129.24	64.62	BDL	BDL
10/6/2006	0.0120	<0.0100	<0.0100	<0.0100	0.0001	BDL	BDL	BDL	64.62	BDL	BDL	BDL
10/13/2006	<0 .0100	< 0.0100	< 0.0100	<0.0100	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
10/20/2006	<0.0100	<0.0100	<0.0100	<0.0100	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
11/17/2006	<0.0100	<0.0100	<0.0100	<0.0100	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
12/27/2006	< 0.0100	< 0.0100	< 0.0100	< 0.0100	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3/30/2007	< 0.0100	< 0.0100	< 0.0100	< 0.0100	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
6/15/2007	0.4600	<0.0100	<0.0100	<0.0100	0.0025	BDL	BDL	BDL	2,477.10	BDL	BDL	BDL
10/16/2007	<0.0100	<0.0100	<0.0100	<0.0100	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
12/14/2007	<0.0100	<0.0100	<0.0100	<0.0100	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3/27/2008	<0.0100	NS	<0.0100	<0.0100	BDL	NS	BDL	BDL	BDL	BDL	BDL	BDL
4/1/2008	NS	<0.0100	NS	NS	NS	BDL	NS	NS	BDL	BDL	BDL	BDL
6/2/2008	<0.0100	<0.0100	<0.0100	<0.0100	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
9/12/2008	<0.0100	<0.0100	<0.0100	<0.0100	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
11/26/2008	<0.0100	NS	<0.0100	<0.0100	BDL	NS	BDL	BDL	BDL	NS	BDL	BDL
12/11/2008	<0.0100	NS	<0.0100	<0.0100	BDL	NS	BDL	BDL	BDL	NS	BDL	BDL
4/1/2009	<0.0100	NS	<0.0100	<0.0100	BDL	NS	BDL	BDL	BDL	NS	BDL	BDL
6/15/2009	<0.0100	NS	<0.0100	<0.0100	BDL	NS	BDL	BDL	BDL	NS	BDL	BDL

Table D1
Air Mitigation - Historical Air Analytical Results
Michigan Plaza
Indianapolis, Indiana
MUNDELL Project No.: M01046

Sample Date	Vinyl Chloride											
	B-1	B-2	B-3	B-4	B-1	B-2	B-3	B-4	B-1	B-2	B-3	B-4
	(ppmv)				(ppm)				(\mu g/m³)			
9/21/2006	<1.0000	<1.0000	<1.0000	<1.0000	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
10/6/2006	<1.0000	<1.0000	<1.0000	<1.0000	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
10/13/2006	<1.0000	<1.0000	<1.0000	<1.0000	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
10/20/2006	<1.0000	<1.0000	<1.0000	<1.0000	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
11/17/2006	<1.0000	<1.0000	<1.0000	<1.0000	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
12/27/2006	<1.0000	<1.0000	<1.0000	<1.0000	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3/30/2007	<1.0000	<1.0000	<1.0000	<1.0000	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
6/15/2007	<1.0000	<1.0000	<1.0000	<1.0000	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
10/16/2007	<1.0000	<1.0000	<1.0000	<1.0000	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
12/14/2007	<1.0000	<1.0000	<1.0000	<1.0000	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
3/27/2008	<1.0000	NS	<1.0000	<1.0000	BDL	NS	BDL	BDL	BDL	NS	BDL	BDL
4/1/2008	NS	<1.0000	NS	NS	NS	BDL	NS	NS	NS	BDL	NS	NS
6/2/2008	<1.0000	<1.0000	<1.0000	<1.0000	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
9/12/2008	<1.0000	<1.0000	<1.0000	<1.0000	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
11/26/2008	<1.0000	NS	<1.0000	<1.0000	BDL	NS	BDL	BDL	BDL	NS	BDL	BDL
12/11/2008	<1.0000	NS	<1.0000	<1.0000	BDL	NS	BDL	BDL	BDL	NS	BDL	BDL
4/1/2009	<1.0000	NS	<1.0000	<1.0000	BDL	NS	BDL	BDL	BDL	NS	BDL	BDL
6/15/2009	<1.0000	NS	<1.0000	<1.0000	BDL	NS	<BDL	BDL	BDL	NS	BDL	BDL

Table D1
Air Mitigation - Historical Air Analytical Results
Michigan Plaza
Indianapolis, Indiana
MUNDELL Project No.: M01046

Sample Date	cis-1,2-Dichloroethylene												
	B-1	B-2	B-3	B-4	B-1	B-2	B-3	B-4	B-1	B-2	B-3	B-4	
	(ppmv)				(ppm)				(\mu g/m³)				
9/21/2006	0.1400	<0.0200	<0.0200	<0.0200	0.0006	BDL	BDL	BDL	556.22	BDL	BDL	BDL	
10/6/2006	0.0300	<0.0200	<0.0200	<0.0200	0.0001	BDL	BDL	BDL	119.19	BDL	BDL	BDL	
10/13/2006	<0.0200	<0.0200	<0.0200	<0.0200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
10/20/2006	<0.0200	<0.0200	<0.0200	<0.0200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
11/17/2006	<0.0200	<0.0200	<0.0200	<0.0200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
12/27/2006	0.024	<0.0200	<0.0200	<0.0200	<0.0200	0.0001	BDL	BDL	BDL	95.35	BDL	BDL	BDL
3/30/2007	<0.0200	<0.0200	<0.0200	<0.0200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
6/15/2007	0.2100	<0.0200	<0.0200	<0.0200	<0.0200	0.0008	BDL	BDL	BDL	834.33	BDL	BDL	BDL
10/16/2007	<0.0200	<0.0200	<0.0200	<0.0200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
12/14/2007	<0.0200	<0.0200	<0.0200	<0.0200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	
3/27/2008	0.034	NS	<0.0200	<0.0200	<0.0200	0.0001	NS	BDL	BDL	135.08	NS	BDL	BDL
4/1/2008	NS	<0.0200	NS	NS	NS	BDL	NS	NS	NS	BDL	NS	NS	NS
6/2/2008	<0.0200	<0.0200	<0.0200	<0.0200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
9/12/2008	<0.0200	<0.0200	<0.0200	<0.0200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
11/26/2008	<0.0200	NS	<0.0200	<0.0200	BDL	NS	BDL	BDL	BDL	NS	BDL	BDL	BDL
12/11/2008	<0.0200	NS	<0.0200	<0.0200	BDL	NS	BDL	BDL	BDL	NS	BDL	BDL	BDL
4/1/2009	<0.0200	NS	<0.0200	<0.0200	BDL	NS	BDL	BDL	BDL	NS	BDL	BDL	BDL
6/15/2009	<0.0200	NS	<0.0200	<0.0200	BDL	NS	BDL	BDL	BDL	NS	BDL	BDL	BDL

Table D2
Air Mitigation System - Historical Air Analytical Results
Michigan Meadows Apartments
Indianapolis, Indiana
MUNDELL Project No.: M01046

Sample Date	Perchloroethylene (PCE)								
	B-5	B-6	B-7	B-5	B-6	B-7	B-5	B-6	B-7
	(ppmv)			(ppm)			(\mu g/m³)		
3/27/2008	0.1300	1.2000	NS	0.0009	0.0082	NS	883.48	8155.20	NS
3/28/2008	0.0730	0.4900	NS	0.0005	0.0033	NS	496.11	3330.04	NS
4/7/2008	NS	NS	0.0760	NS	NS	0.0005	NS	NS	516.50
4/8/2008	NS	NS	0.0470	NS	NS	0.0003	NS	NS	319.41
4/24/2008	0.0540	0.1100	0.0220	0.0004	0.0007	0.0001	366.98	747.56	149.51
5/1/2008	0.0580		0.0390	0.0004	0.0000	0.0003	394.17	0.00	265.04
6/2/2008	0.0590	0.2200	0.0530	0.0004	0.0015	0.0004	400.96	1495.12	360.19
7/10/2008	0.0650	NS	0.0540	0.0004	NS	0.0004	441.74	NS	366.98
8/20/2008	NS	0.2700	NS	NS	0.0018	NS	NS	1834.92	NS
9/12/2008	0.0690	0.1800	0.0540	0.0005	0.0012	0.0004	468.92	1223.28	366.98
11/26/2008	0.0720	0.1100	0.0560	0.0005	0.0007	0.0004	489.31	747.56	380.58
12/11/2008	0.0720	0.1100	0.0560	0.0005	0.0007	0.0004	489.31	747.56	380.58
4/1/2009	0.21	0.13	0.059	0.0014	0.0009	0.0004	1427.16	883.48	400.96
6/15/2009	0.058	0.084	<0.0200	0.0004	0.00057086	BDL	394.17	570.864	BDL

Table D2
Air Mitigation - Historical Air Analytical Results
Michigan Meadows Apartments
Indianapolis, Indiana
MUNDELL Project No.: M01046

Sample Date	Trichloroethylene (TCE)								
	B-5	B-6	B-7	B-5	B-6	B-7	B-5	B-6	B-7
	(ppmv)			(ppm)			(\mu g/m³)		
3/27/2008	< 0.0100	< 0.0100	NS	BDL	BDL	NS	BDL	BDL	NS
3/27/2008	< 0.0100	< 0.0100	NS	BDL	BDL	NS	BDL	BDL	NS
4/7/2008	NS	NS	< 0.0100	NS	NS	BDL	NS	NS	BDL
4/8/2008	NS	NS	< 0.0100	NS	NS	BDL	NS	NS	BDL
4/24/2008	< 0.0100	< 0.0100	< 0.0100	BDL	BDL	BDL	BDL	BDL	BDL
5/1/2008	< 0.0100	< 0.0100	< 0.0100	BDL	BDL	BDL	BDL	BDL	BDL
6/2/2008	< 0.0100	< 0.0100	< 0.0100	BDL	BDL	BDL	BDL	BDL	BDL
7/10/2008	< 0.0100	NS	< 0.0100	BDL	NS	BDL	BDL	NS	BDL
8/20/2008	NS	<0.0100	NS	NS	BDL	NS	NS	BDL	NS
9/12/2008	<0.0100	<0.0100	<0.0100	BDL	BDL	BDL	BDL	BDL	BDL
11/26/2008	<0.0100	<0.0100	<0.0100	BDL	BDL	BDL	BDL	BDL	BDL
12/11/2008	<0.0100	<0.0100	<0.0100	BDL	BDL	BDL	BDL	BDL	BDL
4/1/2009	<0.0100	<0.0100	<0.0100	BDL	BDL	BDL	BDL	BDL	BDL
6/15/2009	<0.0100	<0.0100	<0.0200	BDL	BDL	BDL	BDL	BDL	BDL

Table D2
Air Mitigation - Historical Air Analytical Results
Michigan Meadows Apartments
Indianapolis, Indiana
MUNDELL Project No.: M01046

Sample Date	Vinyl Chloride								
	B-5	B-6	B-7	B-5	B-6	B-7	B-5	B-6	B-7
	(ppmv)			(ppm)			($\mu\text{g}/\text{m}^3$)		
3/27/2008	<1.0000	<1.0000	NS	BDL	BDL	NS	BDL	BDL	NS
3/27/2008	<1.0000	<1.0000	NS	BDL	BDL	NS	BDL	BDL	NS
4/7/2008	NS	NS	<1.0000	NS	NS	BDL	NS	NS	BDL
4/8/2008	NS	NS	<1.0000	NS	NS	BDL	NS	NS	BDL
4/24/2008	<1.0000	<1.0000	<1.0000	BDL	BDL	BDL	BDL	BDL	BDL
5/1/2008	<1.0000	<1.0000	<1.0000	BDL	BDL	BDL	BDL	BDL	BDL
6/2/2008	<1.0000	<1.0000	<1.0000	BDL	BDL	BDL	BDL	BDL	BDL
7/10/2008	<1.0000	NS	<1.0000	BDL	NS	BDL	BDL	NS	BDL
8/20/2008	NS	<1.0000	NS	NS	BDL	NS	NS	BDL	NS
9/12/2008	<1.0000	<1.0000	<1.0000	BDL	BDL	BDL	BDL	BDL	BDL
11/26/2008	<1.0000	<1.0000	<1.0000	BDL	BDL	BDL	BDL	BDL	BDL
12/11/2008	<1.0000	<1.0000	<1.0000	BDL	BDL	BDL	BDL	BDL	BDL
4/1/2009	<1.0000	<1.0000	<1.0000	BDL	BDL	BDL	BDL	BDL	BDL
6/15/2009	<1.0000	<1.0000	<2.0000	BDL	BDL	BDL	BDL	BDL	BDL

Table D2
Air Mitigation - Historical Air Analytical Results
Michigan Meadows Apartments
Indianapolis, Indiana
MUNDELL Project No.: M01046

Sample Date	cis-1,2-Dichloroethylene								
	B-5	B-6	B-7	B-5	B-6	B-7	B-5	B-6	B-7
	(ppmv)			(ppm)			(\mu g/m³)		
3/27/2008	<0.0200	<0.0200	NS	BDL	BDL	NS	BDL	BDL	NS
3/28/2008	<0.0200	<0.0200	NS	BDL	BDL	NS	BDL	BDL	NS
4/7/2008	NS	NS	<0.0200	NS	NS	BDL	NS	NS	BDL
4/8/2008	NS	NS	<0.0200	NS	NS	BDL	NS	NS	BDL
4/24/2008	<0.0200	<0.0200	<0.0200	BDL	BDL	BDL	BDL	BDL	BDL
5/1/2008	<0.0200	<0.0200	<0.0200	BDL	BDL	BDL	BDL	BDL	BDL
6/2/2008	<0.0200	<0.0200	<0.0200	BDL	BDL	BDL	BDL	BDL	BDL
7/10/2008	<0.0200	NS	<0.0200	BDL	NS	BDL	BDL	NS	BDL
8/20/2008	NS	<0.0200	NS	NS	BDL	NS	NS	BDL	NS
9/12/2008	<0.0200	<0.0200	<0.0200	BDL	BDL	BDL	BDL	BDL	BDL
11/26/2008	<0.0200	<0.0200	<0.0200	BDL	BDL	BDL	BDL	BDL	BDL
12/11/2008	<0.0200	<0.0200	<0.0200	BDL	BDL	BDL	BDL	BDL	BDL
4/1/2009	<0.0200	<0.0200	<0.0200	BDL	BDL	BDL	BDL	BDL	BDL
6/15/2009	<0.0200	<0.0200	<0.0400	BDL	BDL	BDL	BDL	BDL	BDL

Table D3
Concentration Averages
Second Quarter 2009
06/15/09
Michigan Plaza
3801-3823 West Michigan Street
Indianapolis, Indiana
MUNDELL Project No. M01046

Sample Date	PCE								TCE								VC								cis-1,2-DCE								
	B-1		B-2		B-3		B-4		B-1		B-2		B-3		B-4		B-1		B-2		B-3		B-4		B-1		B-2		B-3		B-4		
	(µg/m³)								(µg/m³)								(µg/m³)								(µg/m³)								
9/21/2006	4,281.48	4,281.48	5,368.84	5,368.84	4,553.32	4,553.32	1,902.88	1,902.88	129.24	129.24	64.62	64.62	27.00	27.00	27.00	27.00	1,280	1,280	1,280	1,280	1,280	1,280	1,280	1,280	556.22	556.22	40	40	40	40	40	40	
10/6/2006	5,980.48	5,130.98	4,553.32	4,961.08	6,592.12	5,572.72	2,106.76	2,004.82	64.62	96.93	27.00	45.81	27.00	27.00	27.00	27.00	1,280	1,280	1,280	1,280	1,280	1,280	1,280	1,280	119.19	337.71	40	40	40	40	40	40	
10/13/2006	4,621.28	5,300.88	2,446.56	3,499.94	3,533.92	5,063.02	1,427.16	1,766.96	27.00	45.81	27.00	27.00	27.00	27.00	27.00	27.00	1,280	1,280	1,280	1,280	1,280	1,280	1,280	1,280	40	79.60	40	40	40	40	40	40	
10/20/2006	5,912.52	5,266.90	3,737.80	3,092.18	6,048.44	4,791.18	1,495.12	1,461.14	27.00	27.00	27.00	27.00	27.00	27.00	27.00	27.00	1,280	1,280	1,280	1,280	1,280	1,280	1,280	1,280	40	40.00	40	40	40	40	40	40	
11/17/2006	5,504.76	5,708.64	3,194.12	3,465.96	5,300.88	5,674.66	1,019.40	1,257.26	27.00	27.00	27.00	27.00	27.00	27.00	27.00	27.00	1,280	1,280	1,280	1,280	1,280	1,280	1,280	1,280	40	40.00	40	40	40	40	40	40	
12/27/2006	5,029.04	5,266.90	3,194.12	3,194.12	5,097.00	5,198.94	747.56	883.48	27.00	27.00	27.00	27.00	27.00	27.00	27.00	27.00	1,280	1,280	1,280	1,280	1,280	1,280	1,280	1,280	95.35	67.68	40	40	40	40	40	40	
3/30/2007	3,465.96	4,247.50	1,223.28	2,208.70	3,873.72	4,485.36	210.68	479.12	27.00	27.00	27.00	27.00	27.00	27.00	27.00	27.00	1,280	1,280	1,280	1,280	1,280	1,280	1,280	1,280	40	67.68	40	40	40	40	40	40	
6/15/2007	34.00	1,749.98	2,106.76	1,665.02	1,427.16	2,650.44	3,126.16	1,668.42	2,477.10	1,252.05	27.00	27.00	27.00	27.00	27.00	1,280	1,280	1,280	1,280	1,280	1,280	1,280	1,280	834.33	437.17	40	40	40	40	40	40		
10/16/2007	2,650.44	1,342.22	1,631.04	1,868.90	1,902.88	1,665.02	455.33	1,790.75	27.00	1,252.05	27.00	27.00	27.00	27.00	27.00	1,280	1,280	1,280	1,280	1,280	1,280	1,280	1,280	40	437.17	40	40	40	40	40	40		
12/14/2007	3,941.68	3,296.06	2,310.64	1,970.84	3,533.92	2,718.40	951.44	703.39	27.00	27.00	27.00	27.00	27.00	27.00	27.00	1,280	1,280	1,280	1,280	1,280	1,280	1,280	1,280	40	40.00	40	40	40	40	40	40		
3/27/2008	3,737.80	3,839.74	NS	NS	3,805.76	3,669.84	502.90	727.17	27.00	27.00	NS	NS	27.00	27.00	27.00	1,280	1,280	NS	NS	1,280	1,280	1,280	1,280	135.08	87.54	NS	NS	40	40	40	40	40	40
4/1/2008	NS	NS	2,446.56	2,378.60	NS	NS	NS	NS	27.00	27.00	NS	NS	NS	NS	NS	1,280	1,280	NS	NS	1,280	NS	NS	NS	40	40	NS	NS	NS	NS	NS	NS	NS	
6/2/2008	4,893.12	4,315.46	3,805.76	3,126.16	3,330.04	3,567.90	679.60	591.25	27.00	27.00	27.00	27.00	27.00	27.00	27.00	1,280	1,280	1,280	1,280	1,280	1,280	1,280	1,280	40	87.54	40	40	40	40	40	40		
9/12/2008	3262.08	4,077.60	3,194.12	3,499.94	3,601.88	3,465.96	883.48	781.54	27.00	27.00	27.00	27.00	27.00	27.00	27.00	1,280	1,280	1,280	1,280	1,280	1,280	1,280	1,280	40	40.00	40	40	40	40	40	40		
11/26/2008	3126.16	3,194.12	NS	NS	2,446.56	3,024.22	747.56	815.52	27.00	27.00	NS	NS	27.00	27.00	27.00	1,280	1,280	NS	NS	1,280	1,280	1,280	1,280	40	40.00	NS	NS	40	40	40	40	40	40
3/24/2009	3058.20	3,092.18	NS	NS	3,737.80	3,092.18	373.80	560.68	27.00	27.00	NS	NS	27.00	27.00	27.00	1,280	1,280	NS	NS	1,280	1,280	1,280	1,280	40	40.00	NS	NS	40	40	40	40	40	40
6/15/2009	2922.00	2,990.10	NS	NS	2,854.00	3,295.90	136.00	254.90	27.00	27.00	NS	NS	27.00	27.00	27.00	1,280	1,280	NS	NS	1,280	1,280	1,280	1,280	40	40.00	NS	NS	40	40	40	40	40	40

**The detection limit for Vinyl Chloride is fairly high compared to the others. Using 1/2 the detections limit as the assumed concentration will significantly raise the "total pollutants removed" calculation. -DJP **

Sample Date	PCE						TCE						VC						cis-1,2-DCE					
B-5		B-6		B-7		B-5		B-6		B-7		B-5		B-6		B-7		B-5		B-6		B-7		
(µg/m³)						(µg/m³)						(µg/m³)						(µg/m³)						

<tbl_r cells="12" ix="2" maxcspan="2" maxrspan="1" usedcols

Table D4
Total Pounds Removed
Second Quarter 2009
06/15/09
Michigan Plaza
3801-3823 West Michigan Street
Indianapolis, Indiana
MUNDELL Project No. M01046

TOTAL Lbs. REMOVED						
	<u>PID Data</u>	<u>Lab Data</u>				
		PCE	TCE	VC	cis-1,2-DCE	TOTALS
B-1	14.2	22.0	1.8	8.4	0.89	33.1
B-2	6.5	6.9	0.08	3.6	0.11	10.7
B-3	28.1	40.0	0.32	15.1	0.47	55.9
B-4	22.8	10.2	0.31	14.8	0.46	25.8
B-5	7.0	3.26	0.13	6.03	0.19	9.6
B-6	8.7	5.0	0.13	5.94	0.19	11.2
B-7	7.8	1.38	0.12	5.57	0.17	7.2
TOTALS:	95.1	88.7	2.9	59.5	2.5	153.6

Table D5														
Lab Data for Air Mitigation System B-1														
Second Quarter 2009														
06/15/09														
Michigan Plaza														
3801-3823 West Michigan Street														
Indianapolis, Indiana														
MUNDELL Project No. M01046														
B-1 (Lab Data)														
Sample Date	Hours per Cycle	Average Flow Rate (CFM)	Air Vol. Removed per Cycle (CF)	µg/m3 PCE	Lbs. PCE removed	µg/m3 TCE	Lbs. TCE removed	µg/m3 VC	Lbs. VC removed	µg/m3 cis-1,2-DCE	Lbs. cis-1,2-DCE removed	Lbs. Total Pollutants Removed (ug/m3)	Cumulative PCE lbs Removed	Cumulative Total Pollutant lbs Removed
9/21/2006	0.5	73	2,190	4,281	0.00	129	0.00	1,280	0.00	556	0.00	0.00	0.00	0.00
10/6/2006	360	73	1,576,800	5,131	0.50	97	0.01	1,280	0.13	338	0.03	0.67	0.51	0.67
10/13/2006	168	73	735,840	5,301	0.24	46	0.00	1,280	0.06	80	0.00	0.31	0.75	0.98200531
10/20/2006	168	73	735,840	5,267	0.24	27	0.00	1,280	0.06	40	0.00	0.30	0.990333	1.28558899
11/17/2006	672	73	2,943,360	5,709	1.05	27	0.00	1,280	0.24	40	0.01	1.30	2.0384589	2.58102866
12/27/2006	960	73	4,204,800	5,267	1.38	27	0.01	1,280	0.34	68	0.02	1.74	3.4199173	4.32305167
3/30/2007	2,232	73	9,776,160	4,248	2.59	27	0.02	1,280	0.78	68	0.04	3.43	6.0101518	7.75159888
6/15/2007	1,848	73	8,094,240	1,750	0.88	1,252	0.63	1,280	0.65	437	0.22	2.38	6.8937331	10.1343649
10/16/2007	2,952	73	12,929,760	1,342	1.08	1,252	1.01	1,280	1.03	437	0.35	3.48	7.9762921	13.6117253
12/14/2007	1,416	73	6,202,080	3,296	1.28	27	0.01	1,280	0.50	40	0.02	1.80	9.2514674	15.408026
3/27/2008	2,496	73	10,932,480	3,840	2.62	27	0.02	1,280	0.87	88	0.06	3.57	11.869999	18.9775732
6/2/2008	1,608	73	7,043,040	4,315	1.90	27	0.01	1,280	0.56	88	0.04	2.51	13.76594	21.4861866
9/12/2008	2,448	73	10,722,240	4,078	2.73	27	0.02	1,280	0.86	40	0.03	3.63	16.493206	25.1143817
11/26/2008	1,800	73	7,884,000	3,194	1.57	27	0.01	1,280	0.63	40	0.02	2.23	18.063999	27.3476223
12/11/2008	360	73	1,576,800	3,126	0.31	27	0.00	1,280	0.13	40	0.00	0.44	18.371485	27.7875978
3/24/2009	2664	73	11668320	3058.2	2.225931	27	0.019652	1280	0.93166	40	0.0291143	3.206353	20.597415	30.9939509
6/15/2009	1,992	73	8,724,960	2,922	1.59	27	0.01	1,280	0.70	40	0.02	2.32	22.03	33.09
TOTALS:	14,881		83,782,830		20.60		1.78		7.75		0.87		30.99	
TOTALS:	14,881		97,027,950										13.37	

Table D6

Lab Data for Air Mitigation System B-2

Second Quarter 2009

06/15/09

Michigan Plaza

3801-3823 West Michigan Street

Indianapolis, Indiana

MUNDELL Project No. M01046

B-2 (Lab Data)													B-2 (PID Readings)									
Sample Date	Hours per Cycle	Average Flow Rate (CFM)	Air Vol. Removed per Cycle (CF)	µg/m3 PCE	Lbs. PCE removed	µg/m3 TCE	Lbs. TCE removed	µg/m3 VC	Lbs. VC removed	µg/m3 cis-1,2-DCE	Lbs. cis-1,2-DCE removed	Lbs. Total Pollutants Removed	Cumulative PCE lbs Removed	Cumulative Total Pollutant lbs Removed	Sample Date	Hours Per Cycle	Average Flow Rate (CFM)	Air Vol. Removed per Cycle (CF)	PID Reading (ppm VOCs)	µg/m3 VOCs	Lbs. VOCs Removed	Cum Total lbs Removed (Est from PID)
9/21/2006	0.5	37	1,110	5,369	0.00	65	0.00	1,280	0.00	40	0.00	0.00	0.000371741	0.000467613	9/21/2006	0.5	37	1,110	2.0	5,028	0.00	0.000348141
10/6/2006	360	37	799,200	4,961	0.25	46	0.00	1,280	0.06	40	0.00	0.32	0.247697359	0.315883203	9/28/2006	168	37	372,960	2.0	5,028	0.12	0.117323644
10/13/2006	168	37	372,960	3,500	0.08	27	0.00	1,280	0.03	40	0.00	0.11	0.329122824	0.428646378	10/6/2006	192	37	426,240	1.1	3,255	0.09	0.203876742
10/20/2006	168	37	372,960	3,092	0.07	27	0.00	1,280	0.03	40	0.00	0.10	0.401061828	0.531923091	10/13/2006	168	37	372,960	0.6	2,369	0.06	0.258989932
11/17/2006	672	37	1,491,840	3,466	0.32	27	0.00	1,280	0.12	40	0.00	0.45	0.723601537	0.979813638	10/20/2006	168	37	372,960	0.3	1,926	0.04	0.303792736
12/27/2006	960	37	2,131,200	3,194	0.42	27	0.00	1,280	0.17	40	0.01	0.60	1.148233647	1.583518373	11/17/2006	672	37	1,491,840	0.1	1,483	0.14	0.441762411
3/30/2007	2,232	38	5,088,960	2,209	0.70	27	0.01	1,280	0.41	40	0.01	1.13	1.849371097	2.712252211	12/27/2006	960	37	2,131,200	0.1	1,483	0.20	0.638861946
6/15/2007	1,848	42	4,656,960	1,665	0.48	27	0.01	1,280	0.37	40	0.01	0.87	2.333052465	3.587231464	6/15/2007	4,080	41	10,036,800	0.1	1,483	0.93	1.567094215
10/16/2007	2,952	48	8,501,760	1,869	0.99	27	0.01	1,280	0.68	40	0.02	1.71	3.324186298	5.292719875	10/16/2007	2,952	48	8,501,760	0.1	1,483	0.79	2.353361548
12/14/2007	1,416	53	4,502,880	1,971	0.55	27	0.01	1,280	0.36	40	0.01	0.93	3.8777647	6.224649694	12/14/2007	1,416	53	4,502,880	0.1	1,483	0.42	2.769800904
4/1/2008	2,616	50	7,848,000	2,379	1.16	27	0.01	1,280	0.63	40	0.02	1.82	5.042206548	8.048514384	6/2/2008	4,104	46.5	11,450,160	1.5	4,095	2.92	5.694645915
6/2/2008	1,488	42	3,705,120	3,126	0.72	27	0.01	1,280	0.30	40	0.01	1.03	5.764728217	9.082356231	9/12/2008	2,448	37	5,434,560	0.5	2,229	0.76	6.450280544
9/12/2008	2,448	37	5,434,560	3,450	1.17	27	0.01	1,280	0.43	40	0.01	1.63	6.934283834	10.70854704	11/26/2008	NS	NS	NS	NS	NS	NS	NS
11/26/2008	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
12/11/2008	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
3/24/2009	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
6/15/2009	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	6.93	10.71								
TOTALS:	14,881		44,907,510		6.93		0.08		3.59		0.11		10.71				45,095,430		6.45			

Table D7

Lab Data for Air Mitigation System B-3

Second Quarter 2009

06/15/09

Michigan Plaza

3801-3823 West Michigan Street

Indianapolis, Indiana

MUNDELL Project No. M01046

B-3 (Lab Data)													B-3 (PID Readings)									
Sample Date	Hours per Cycle	Average Flow Rate (CFM)	Air Vol. Removed per Cycle (CF)	µg/m³ PCE	Lbs. PCE removed	µg/m³ TCE	Lbs. TCE removed	µg/m³ VC	Lbs. VC removed	µg/m³ cis-1,2-DCE	Lbs. cis-1,2-DCE removed	Lbs. Total Pollutants Removed	Cumulative PCE lbs Removed	Cumulative Total Pollutant lbs Removed	Sample Date	Hours Per Cycle	Average Flow Rate (CFM)	Air Vol. Removed per Cycle (CF)	PID Reading (ppm VOCs)	µg/m³ VOCs	Lbs. VOCs Removed	Cum Total lbs Removed (Est from PID)
9/21/2006	0.5	132	3,960	4,553	0.00	27	0.00	1,280	0.00	40	0.00	0.00	0.0011248	0.0014575	9/21/2006	0.5	132	3,960	1.8	4,655	0.00	0.0011498
10/6/2006	360	132	2,851,200	5,573	0.99	27	0.00	1,280	0.23	40	0.01	1.23	0.9922586	1.2321615	9/28/2006	168	132	1,330,560	2.2	5,401	0.45	0.449443
10/13/2006	168	132	1,330,560	5,063	0.42	27	0.00	1,280	0.11	40	0.00	0.53	1.4124832	1.7641855	10/6/2006	192	132	1,520,640	2.1	5,215	0.49	0.944078
10/20/2006	168	132	1,330,560	4,791	0.40	27	0.00	1,280	0.11	40	0.00	0.51	1.8101455	2.2736471	10/13/2006	168	132	1,330,560	2.1	5,121	0.43	1.3691398
11/17/2006	672	132	5,322,240	5,675	1.88	27	0.01	1,280	0.42	40	0.01	2.33	3.6941055	4.6048048	10/20/2006	168	132	1,330,560	2.0	5,075	0.42	1.7903297
12/27/2006	960	132	7,603,200	5,199	2.47	27	0.01	1,280	0.61	40	0.02	3.10	6.1598531	7.7094061	11/17/2006	672	132	5,322,240	2.0	5,028	1.67	3.4596017
3/30/2007	2,232	132	17,677,440	4,485	4.95	27	0.03	1,280	1.41	40	0.04	6.43	11.105853	14.14074	12/27/2006	960	132	7,603,200	0.1	1,483	0.70	4.1627676
6/15/2007	1,848	132	14,636,160	2,650	2.42	27	0.02	1,280	1.17	40	0.04	3.65	13.52567	17.790351	6/15/2007	4,080	132	32,313,600	0.1	1,483	2.99	7.1512227
10/16/2007	2,952	132	23,379,840	1,665	2.43	27	0.04	1,280	1.87	40	0.06	4.39	15.953948	22.183104	10/16/2007	2,952	132	23,379,840	0.1	1,483	2.16	9.3134579
12/14/2007	1,416	132	11,214,720	2,718	1.90	27	0.02	1,280	0.90	40	0.03	2.84	17.855635	25.027101	12/14/2007	1,416	132	11,214,720	0.1	1,483	1.04	10.350628
3/27/2008	2,496	132	19,768,320	3,670	4.53	27	0.03	1,280	1.58	40	0.05	6.19	22.381007	31.213492	3/27/2008	2,496	132	19,768,320	1.3	3,722	4.59	14.940073
6/2/2008	1,608	132	12,735,360	3,568	2.83	27	0.02	1,280	1.02	40	0.03	3.90	25.215408	35.117973	6/2/2008	1,608	132	12,735,360	1.2	3,535	2.81	17.748496
9/12/2008	2,448	132	19,388,160	3,466	4.19	27	0.03	1,280	1.55	40	0.05	5.82	29.407228	40.938869	9/12/2008	2,448	132	19,388,160	0.5	2,229	2.70	20.444274
11/26/2008	1,800	132	14,256,000	3,024	2.69	27	0.02	1,280	1.14	40	0.04	3.89	32.096389	44.825881	11/26/2008	1,800	132	14,256,000	0.4	2,042	1.82	22.260525
12/11/2008	360	132	2,851,200	2446.6	0.44	27	0.00	1,280	0.23	40	0.01	0.67	32.531521	45.500584	12/11/2008	360	132	2,851,200	0.8	2788.8	0.50	22.756526
3/24/2009	2664	132	21098880	3737.8	4.9194082	27	0.03553535	1,280	1.68463868	40	0.052644959	6.692227154	37.45092907	52.19281067	3/24/2009	2664	132	21098880	0.6	2415.6	3.17922906	25.93575501
6/15/2009	1,992	132	15,776,640	2,854	2.81	27	0.03	1,280	1.26	40	0.04	4.13	39.91	55.85	6/15/2009	1,992	132	15,776,640	0.6	2,416	2.38	28.08
TOTALS:	14,881		117,853,560		25.22		0.30		14.01		0.44		35.12		TOTALS:	14,881		151,497,720		22.76		

Table D8

Lab Data for Air Mitigation System B-4

Second Quarter 2009

06/15/09

Michigan Plaza

3801-3823 West Michigan Street

Indianapolis, Indiana

MUNDELL Project No. M01046

B-4 (Lab Data)													B-4 (PID Readings)									
Sample Date	Hours per Cycle	Average Flow Rate (CFM)	Air Vol. Removed per Cycle (CF)	µg/m³ PCE	Lbs. PCE removed	µg/m³ TCE	Lbs. TCE removed	µg/m³ VC	Lbs. VC removed	µg/m³ cis-1,2-DCE	Lbs. cis-1,2-DCE removed	Lbs. Total Pollutants Removed	Cumulative PCE lbs Removed	Cumulative Total Pollutant lbs Removed	Sample Date	Hours Per Cycle	Average Flow Rate (CFM)	Air Vol. Removed per Cycle (CF)	PID Reading (ppm VOCs)	µg/m³ VOCs	Lbs. VOCs Removed	Cum Total lbs Removed (Est from PID)
9/21/2006	0.5	132	3,960	1,903	0.00	27	0.00	1,280	0.00	40	0.00	0.00	0.00047005	0.0008028	9/21/2006	0.5	132	3,960	0.2	1,669	0.00	0.000412
10/6/2006	360	132	2,851,200	2,005	0.36	27	0.00	1,280	0.23	40	0.01	0.60	0.35703649	0.5969394	9/28/2006	168	132	1,330,560	0.4	2,042	0.17	0.169929
10/13/2006	168	132	1,330,560	1,767	0.15	27	0.00	1,280	0.11	40	0.00	0.26	0.50369206	0.8553943	10/6/2006	192	132	1,520,640	0.3	1,763	0.17	0.337112
10/20/2006	168	132	1,330,560	1,461	0.12	27	0.00	1,280	0.11	40	0.00	0.23	0.62496494	1.0884666	10/13/2006	168	132	1,330,560	0.2	1,623	0.13	0.471782
11/17/2006	672	132	5,322,240	1,257	0.42	27	0.01	1,280	0.42	40	0.01	0.86	1.04236927	1.9530685	10/20/2006	168	132	1,330,560	0.1	1,553	0.13	0.600644
12/27/2006	960	132	7,603,200	883	0.42	27	0.01	1,280	0.61	40	0.02	1.06	1.4613852	3.0109381	11/17/2006	672	132	5,322,240	0.1	1,483	0.49	1.09286
3/30/2007	2,232	130	17,342,640	479	0.52	27	0.03	1,280	1.38	40	0.04	1.98	1.97970177	4.9864582	12/27/2006	960	132	7,603,200	0.1	1,483	0.70	1.796026
6/15/2007	1,848	125	13,887,720	1,668	1.45	27	0.02	1,280	1.11	40	0.03	2.61	3.4250524	7.598715	6/15/2007	4,080	127.75	31,273,200	0.1	1,483	2.89	4.688262
10/16/2007	2,952	128	22,627,080	1,791	2.53	27	0.04	1,280	1.81	40	0.06	4.43	5.95260323	12.027491	10/16/2007	2,952	128	22,671,360	0.1	1,483	2.10	6.784975
12/14/2007	1,416	132	11,214,720	703	0.49	27	0.02	1,280	0.90	40	0.03	1.43	6.44466491	13.461862	12/14/2007	1,416	132	11,214,720	0.1	1,483	1.04	7.822145
3/27/2008	2,496	128	19,094,400	727	0.87	27	0.03	1,280	1.52	40	0.05	2.47	7.31078989	15.932381	3/29/2008	2,544	128	19,537,920	1.8	4,655	5.67	13.4952
6/2/2008	1,608	119	11,481,120	591	0.42	27	0.02	1,280	0.92	40	0.03	1.39	7.73423222	17.320516	6/2/2008	1,560	119	11,138,400	0.3	1,856	1.29	14.78461
9/12/2008	2,448	132	19,388,160	782	0.95	27	0.03	1,280	1.55	40	0.05	2.57	8.67999179	19.895353	9/12/2008	2,448	132	19,388,160	0.4	2,042	2.47	17.25471
11/26/2008	1,800	132	14,256,000	816	0.73	27	0.02	1,280	1.14	40	0.04	1.92	9.40563852	21.81885	11/26/2008	1,800	132	14,256,000	0.1	1,483	1.32	18.57314
12/11/2008	360	132	2,851,200	747.56	0.13	27	0.00	1280	0.23	40	0.01	0.37	9.538595496	22.19137713	12/11/2008	360	132	2,851,200	0.1	1,482.6	0.26	18.83683
4/1/2009	2664	132	21098880	373.8	0.491967	27	0.035535	1280	1.684639	40	0.05264	2.2647861	10.0305626	24.456163	4/1/2009	2664	132	21098880	0.25	1762.5	2.319668	21.1565
3/24/2009	2,832	132	22,429,440	374	0.52	27	0.04	1,280	1.79	40	0.06	2.41	10.06	24.60	3/24/2009	2,472	132	19,578,240	0.3	1,763	2.15	20.99
6/15/2009	4,464	132	35,354,880	136	0.30	27	0.06	1,280	2.82	40	0.09	3.27	10.36	27.87	6/15/2009	1,992	132	15,776,640	0.3	1,856	1.83	22.82
TOTALS:	14,881		114,089,400		7.73		0.29		13.71		0.43		24.46		TOTALS:	14,881		171,871,560		21.16		

Table D9

Lab Data for Air Mitigation System B-5

Second Quarter 2009

06/15/09

Michigan Plaza

3801-3823 West Michigan Street

Indianapolis, Indiana

MUNDELL Project No. M01046

Table D10

Lab Data for Air Mitigation System B-6

Second Quarter 2009

06/15/09

Michigan Plaza

3801-3823 West Michigan Street

Indianapolis, Indiana

MUNDELL Project No. M01046

Table D11

Lab Data for Air Mitigation System B-7

Second Quarter 2009

06/15/09

Michigan Plaza

3801-3823 West Michigan Street

Indianapolis, Indiana

MUNDELL Project No. M01046